

## **Historic, Archive Document**

Do not assume content reflects current scientific knowledge, policies, or practices.



166.3  
M68  
no. 30  
cop. 2

FARM CREDIT ADMINISTRATION  
UNITED STATES DEPARTMENT OF AGRICULTURE  
WASHINGTON, D. C.

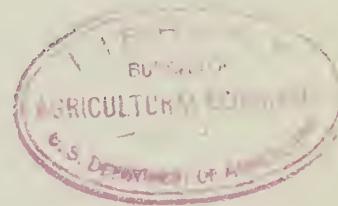
COMPETITION  
BETWEEN FRUITS AT RETAIL,  
NEW YORK CITY, NOVEMBER 1939

Preliminary Report

S. S. R. R.

166.3  
M68  
no. 30, cop. 2  
APR 22 1941

By  
MARIUS P. RASMUSSEN,  
FORD A. QUITSLUND,  
and  
EDWIN W. CAKE



COOPERATIVE RESEARCH AND SERVICE DIVISION

Miscellaneous Report No. 30

December 1940

INV. '60

FARM CREDIT ADMINISTRATION

A. G. Black - Governor

COOPERATIVE RESEARCH AND SERVICE DIVISION

T. G. Stitts - Chief

W. W. Fetrow - Associate Chief

## CONTENTS

	<u>PAGE</u>
Source of data	2
Dollar volume of sales, by types of retail outlets	2
Quantities of fresh fruits handled weekly	4
Sales volume of different outlets for fresh fruits	5
Proportion of retail outlets handling each fruit	7
Relation of family income to coverage and sales	7
Quantities of canned fruits and juices handled weekly	15
Influence of family incomes on sales of fresh and canned	
fruits and juices	16
Income and sales of fresh fruit	18
Income and canned goods sales	18
Income and realized retail prices	18
Income and average retail margins	22
Gross retail margins	22
Range by type of outlet	23
Differences between outlets for selected fruits	23
Gross margins and volume of sales	26
Margins on eastern apples	27
Margins on western apples	27
Margins on California oranges	27
Margins on Florida oranges	31
Margins on grapefruit	31
Margins on bananas	31
Margins on western pears	31
Margins on western grapes	35
Margins on tangerines	35
Margins on cranberries	35
Income areas and gross retail margins	40
Margins on eastern apples	40
Margins on western apples	40
Margins on oranges	40
Margins on grapefruit	43
Margins on bananas	43
Margins on pears	43
Margins on western grapes	43
Margins on tangerines	43
Margins on cranberries	47
Interpretation of data on gross margins	47
Spoilage and fruit sales	49
Spoilage on apples	49
Spoilage on oranges	49
Spoilage on other fruits	49
Spoilage, prices and margins related to volume handled	51
Apples	51
Oranges	51
Grapefruit	53

	<u>PAGE</u>
Tangerines	53
Bananas	53
Western grapes	53
Western pears	57
Amount of display space related to sales	57
Attractiveness of display related to sales	61
Varieties of apples handled	61
Proportion of stores handling each variety	65
Grades of apples reported sold	67
Sizes of apples sold	70
Brands of apples handled by retailers	76
Eastern apples	76
Western apples	76
Sizes of western apples and prices	84
Sources of supply of apples handled by independent retailers	87
Number of items handled per retail outlet	89

COMPETITION BETWEEN FRUITS AT RETAIL,  
NEW YORK CITY, NOVEMBER, 1939

By

Marius P. Rasmussen, Professor of Marketing,  
New York State College of Agriculture  
at Cornell University

and

Ford A. Quitslund and Edwin W. Cake  
Associate Agricultural Economists  
Farm Credit Administration

This is the second of a series of preliminary reports containing factual information on retailer and consumer demand for apples and other fruits during three different periods of the 1939-40 season. These reports also contain information on seasonal competition between apples and other fruits at retail in New York City. The first report was issued in September 1940, and covered weekly sales of apples and other fruits through 1,543 retail outlets of various kinds during August 1939. 1/ Readers are referred to that report for a statement of the background of this study. This, the November report, deals with weekly sales of apples and other fruits through 1,516 retail outlets of various kinds during November 1939. The third report will cover sales during March 1940. These preliminary reports contain information about several fruits from many producing areas. The practical application of these data to each fruit and each area differs in important ways. Time and space do not permit an attempt at relating the data to the problems in each area. These reports are, therefore, limited largely to presenting the data as factual information without interpretations.

---

Note. - This study was made possible by the wholehearted support and assistance of chain-store and independent retailers in New York City. To the corporate chain-grocery systems and the independent retailers who so graciously cooperated, the authors express grateful appreciation.

1/ Rasmussen, M.P., Quitslund, F.A., and Cake, E.W., "Some Facts Concerning Competition Between Apples and Other Fruits at Retail, New York City, August 1939," FCA Misc. Report No. 25, 76 pp., 1940 (mimeo.).

#### SOURCE OF DATA

This preliminary report is based on data obtained in New York City during November 1939, from 422 independent fruit and vegetable stores, 361 independent grocery stores, 319 pushcart and public market stall operators, 277 chain grocery stores, 71 wagon or motor hucksters, and 66 meat markets. 2/ The sampling of retail outlets was done in such a manner as to obtain a cross-section of retail fruit outlets in areas representing each of the various family-income levels in the four large boroughs.

Only those retail outlets which handled fresh fruits during November 1939, were included in this survey. This fact should be borne in mind in interpreting data throughout the report.

#### DOLLAR VOLUME OF SALES, BY TYPES OF RETAIL OUTLETS

Of the outlets included in this survey, independent meat markets ranked first in dollar sales of fruits and vegetables per outlet (\$285 per week). They were followed closely by independent fruit and vegetable stores (\$250 per week). Chain grocery stores were third (\$223 weekly). Wagon or motor hucksters with sales of \$119 per week and independent grocery stores with sales of \$118 per week were close competitors for fourth place. Pushcart 3/ operators were lowest with sales of \$80 per week (table 1). Fruit and vegetable sales made up 14 percent of gross sales in chain grocery stores during November, as was true during August; in independent grocery stores, fruit and vegetable sales constituted 22 percent during November and 21 percent during August. In meat markets, sales of fruits and vegetables during November likewise constituted the same proportion of all sales (30 percent) as during August. During both August and November, almost all of the business of the independent fruit and vegetable stores, hucksters, and pushcart operators consisted of fruits and vegetables.

---

2/ The term "meat markets" as used in this report means combination meat-fruit-and-vegetable markets. Only about 8 percent of the meat markets in New York City handle fruits and vegetables.

3/ Includes public market stalls also. In this report pushcarts and public market stalls have been thrown together because of their very close similarity in methods of operation, size of business, etc. Hereinafter, the term pushcarts refers to a combination of both pushcarts and public market stalls.

Table 1.- Relation of weekly dollar sales of fruits and vegetables to gross sales of all commodities, as reported by 1,516 retail outlets, New York City, November 1939

Type of retail outlet	Outlets reporting	Weekly gross sales		Proportion fruit and vegetable sales were of all commodity sales
		All commodities	Fruits and vegetables	
	Number	Dollars	Dollars	Percent
<u>Grocery stores:</u>				
Chain	277	1,631	223	14
Independent	361	535	118	22
Meat markets	66	958	285	30
Fruit and vegetable stores	422	259	250	97
Wagon or motor hucksters	71	119	119	100
Pushcart operators	319	80	80	100

## QUANTITIES OF FRESH FRUITS HANDLED WEEKLY

Data were obtained concerning sales of both eastern and western apples and of all fruits in season, which were handled in sufficient volume to be direct or indirect competitors of apples during November 1939. The 1,516 retail outlets covered in the November survey handled approximately 3 million pounds of fruit weekly (table 2). The fruit handled in largest quantity per outlet was apples (629 pounds per week, almost one-third of the total weight of fruit handled) and oranges ranked a close second (617 pounds per week, or almost 32 percent). Grapefruit was third in importance (228 pounds weekly, or almost 12 percent); bananas fourth (157 pounds weekly, or about 8 percent); grapes fifth (126 pounds weekly, or about 6-1/2 percent); and pears sixth (107 pounds weekly, or almost 6 percent) (table 2). Citrus fruits (that is, oranges, grapefruit, and tangerines) accounted for about 46 percent of the total tonnage of the selected fresh fruits.

The spoilage on all selected fruits averaged 3.8 pounds per 100 pounds, and ranged from about 1 $\frac{1}{4}$  pounds on honeydew melons to 2-1/2 pounds on eastern grapes. Average spoilage on apples (3.2 pounds per 100 pounds) was close to that on oranges (3.3 pounds).

Table 2.— Quantities of leading fruits sold weekly and average retail price, cost price, and gross margin, as reported by 1,516 retail outlets, New York City, November 1939

Fruit	Quantity sold weekly all outlets		Realized retail price per pound	Gross retail margin		Spoilage per 100 pounds
	Total	Average per outlet		Per pound	Percent- age of realized retail price	
<u>Apples:</u>						
Eastern	804,343	531	3.8	1.6	42	3.3
Western	148,321	98	5.1	2.1	30	3.1
Total	952,664	629	4.3	1.7	40	3.2
<u>Oranges:</u>						
Florida	539,940	389	3.7	1.1	30	3.0
California	345,753	228	7.0	1.9	27	3.7
Total	935,693	617	4.9	1.4	29	3.3
Grapefruit	345,638	228	4.3	1.2	28	3.0
Bananas	237,523	157	4.5	0.8	18	6.4
<u>Grapes:</u>						
Western	186,230	123	7.1	1.5	21	8.2
Eastern	4,715	3	3.7	0.6	16	2.5
Total	190,945	126	7.1	1.6	23	8.0
<u>Pears:</u>						
Western	145,882	96	6.9	2.0	29	3.6
Eastern	16,958	11	4.0	1.5	38	4.1
Total	162,840	107	6.6	2.0	30	3.6
Tangerines	71,772	47	6.3	2.0	32	3.7
Cranberries	26,843	18	15.4	3.0	19	1/
Honeydew melons	6,138	4	9.2	3.3	36	14.3
Other melons	1,160	1	13.3	3.7	28	11.0
<b>TOTAL OR AVERAGE</b>	<b>2,931,266</b>	<b>1,934</b>	<b>100.0</b>	<b>5.0</b>	<b>1.5</b>	<b>3.8</b>

1/ Less than 0.1 percent.

The average realized retail price <sup>4/</sup> for all selected fruits during November was 5 cents per pound, and ranged from 3.7 cents per pound on Florida oranges and eastern grapes to 15.4 cents per pound on cranberries. Gross percentage retail margins realized on the various fruits ranged from 16 percent on eastern grapes to 42 percent on eastern apples, and averaged 30 percent on all selected fruits.

#### SALES VOLUME OF DIFFERENT OUTLETS FOR FRESH FRUITS

The quantity of selected fruits sold weekly during November totaled 2,931,266 pounds for all stores, or 1,934 pounds per outlet. This may be compared with 1,623 pounds per outlet in August 1939. As was the case during August 1939, there were large differences in the average quantities of fruit sold through the various types of retail fruit outlets.

On the basis of total tonnage of selected fresh fruits sold weekly per retail outlet, independent meat markets led with 3,000 pounds per week, and chain grocery stores were second with 2,532 pounds (table 3). Independent fruit and vegetable stores ranked third (2,165 pounds weekly tonnage), followed closely by wagon or motor hucksters (2,015 pounds per week). Pushcart operators ranked fifth (1,681 pounds per week), and independent grocery stores were lowest (1,216 pounds weekly).

As in August 1939, the various types of retail outlets did not rank in the same order with regard to sales of individual fruits as they ranked in total tonnage. During November, the meat markets led in sales of apples, bananas, tangerines, eastern pears, and cranberries per outlet, and also ranked high in sales of

---

<sup>4/</sup> "Realized retail price": Since spoilage is inevitable in handling fruits and vegetables, and retailers rarely sell as many pounds per unit as they buy, the actual price per pound charged the consumers is not an accurate statement of retail prices from the point of view of the retailer. For example, a grocer buys 100 pounds of apples at a cost of \$2. Spoilage amounts to about 4 percent, so he actually sold 96 pounds and not 100 pounds. Actual price per pound to consumer was 3-3/4 cents per pound times 96 pounds sold = \$3.60 realized retail price per 100 pounds purchased or 3.6 cents per pound. Differences between the cost of \$2 per 100 and the realized selling price of \$3.60 per hundred = \$1.60 (or 1.6 cents gross margin per pound purchased). Percentage of gross margin was calculated in the above case by dividing 1.6 cents gross margin per pound purchased by 3.6 cents per pound realized retail price =  $\frac{1.6}{3.6} \times 100 = 44\%$  percent gross margin.

Throughout this report the terms "realized retail price" and "gross retail margin" are used to indicate the above illustrated relationships.

Table 3.- Relative importance of various types of retail outlets for sales of selected fruits as reported by 1,516 retailers, New York City, November 1939

Commodity	Quantity sold weekly per retail outlet			Total or average all outlets		
	Pounds	Grocery stores Independents	Chain stores	Pounds	meat markets pushcart operators	wagon or motor hucksters
fruit and vegetable stores	422	361	277	66	319	71
Apples:						
Eastern	617	278	498	807	579	953
Western	111	79	135	175	71	20
Oranges:						
California	311	197	292	389	84	139
Florida	308	206	737	511	387	338
Grapefruit	240	158	423	298	135	106
Bananas	196	108	172	304	136	69
Pears:						
Eastern	12	4	5	25	22	4
Western	134	69	76	133	99	42
Grapes:						
Eastern	4	5	3	-	1	3
California	147	68	104	193	110	324
Tangerines	63	28	33	105	56	19
Cranberries	18	11	41	56	1	1
Honeydew melons	4	4	11	4	-	-
Other melons	1/	1	2	-	-	-
Total, all selected fruits	2,165	1,216	2,532	3,000	1,681	2,015
						1,934

1/ Less than 1 pound.

oranges, grapefruit, and California grapes. Chain grocery stores sold more oranges and grapefruit than any other type of store, and ranked second in the sale of cranberries. Independent retail grocery stores ranked lowest in sales per outlet of apples, oranges, eastern pears, and California grapes. Pushcart operators and motor or wagon hucksters handled almost no cranberries and only a small volume of western apples (table 3).

#### PROPORTION OF RETAIL OUTLETS HANDLING EACH FRUIT

As might be anticipated, a much larger proportion of these retail outlets handled apples in November than in August. Whereas only 15 percent handled western apples in August, 62 percent handled them in November. It is important, however, that even in November, approximately one-third of these outlets handled no western apples. Although eastern apples were handled by a larger proportion of outlets (88 percent) than any other fruit, 12 percent of the outlets did not handle eastern apples (table 4). It seems to be generally assumed that oranges have a wide retail distribution, yet 29 percent of these fruit outlets did not handle California oranges, and 23 percent did not handle Florida oranges. Almost one-quarter of the outlets did not handle grapefruit, and about one-third did not handle bananas, western pears, or western grapes. Tangerines were handled by less than half of the outlets, and cranberries by only one-third.

There were also wide differences in the coverage of each type of retail outlet. For example, 81 percent of the fruit and vegetable stores and 91 percent of the meat markets handled western apples, in contrast with 24 percent of the pushcart operators and 17 percent of the wagon or motor hucksters (table 4). Less than one-quarter of the pushcart operators and less than half of the wagon or motor hucksters handled California oranges, in comparison with 92 percent of the fruit and vegetable stores and 86 percent of the chain grocery stores. Slightly more than half of the grocery stores handled western pears, in contrast with 95 percent of the fruit and vegetable stores and 86 percent of the meat markets. Only one-quarter of the pushcarts, and one-third of the independent grocery stores handled tangerines, in comparison with about two-thirds of the fruit and vegetable stores and meat markets. Cranberries were handled by two-thirds of the chain grocery stores, but by only 45 percent of the fruit and vegetable stores and about one-quarter of the independent grocery stores.

#### RELATION OF FAMILY INCOME TO COVERAGE AND SALES

In November, as in August, an important part of the differences in coverage of outlets and quantity of each fruit handled appears to have resulted from differences in average family incomes in the

Table 4.- Proportions of all stores surveyed that handled specified fruits, as reported by 1,516 retail outlets, New York City, November 1939

Fruit	Percentage of outlets that handled specified fruit						Average 1,516 retail outlets
	422 fruit and vegetable stores	422 Grocery stores	361 independents	277 chain stores	66 meat markets	319 pushcart operators	
	Percent	Percent	Percent	Percent	Percent	Percent	Percent
<u>Apples:</u>							
Eastern	99	83	98	97	70	94	88
Western	81	68	72	91	24	17	62
<u>Oranges:</u>							
California	92	77	86	94	24	45	71
Florida	90	76	93	86	48	69	77
Grapefruit	95	76	98	98	32	45	76
Bananas	87	73	85	91	11	18	64
<u>Pears:</u>							
Eastern	18	7	5	27	4	4	10
Western	96	58	55	86	38	42	64
<u>Grapes:</u>							
Eastern	3	1	2	--	1	--	1
Western	95	53	61	89	34	46	64
Tangerines	65	33	42	67	24	28	43
Cranberries	45	24	66	59	1	4	33
Honeydew melons	5	4	9	6	--	--	4
Other melons	1/	1	3	--	--	--	1

1/ Less than 1 percent.

neighborhoods in which the retail outlets were located. 5/ For example, 22 percent of all retail outlets in the low-income areas did not handle eastern apples, whereas only from 2 to 3 percent failed to handle eastern apples in the two highest-income areas (table 5). In addition, of the outlets in the lowest-income areas, which actually handled eastern apples, 57 percent handled less than 300 pounds per week; whereas in the highest-income areas, only 32 percent handled less than 300 pounds per week. However, the quantity of eastern apples handled per outlet in each of the income areas ranged from none to more than 2,000 pounds per week. In other words, large volume outlets (that is, those handling 1,000 pounds or more per week) were found in all four income areas but the proportion was slightly higher in the two highest-income areas. Concentration of volume in a few outlets was noticeable in all areas. In the lowest-income areas, 11 percent of all retail outlets handled 57 percent of the tonnage of apples. In the highest-income neighborhoods, 17 percent of all outlets handled 48 percent of the tonnage.

Differences between income areas in the handling of western apples (table 5), California and Florida oranges (table 6), grapefruit and tangerines (table 7), bananas and cranberries (table 8), and western grapes and western pears (table 9) were similar in many respects to those for eastern apples.

Many fruits had relatively poor coverage in low and medium-low income areas. In the lowest-income areas, the proportion of all retail stores that did not handle a given fruit were as follows: Cranberries, 96 percent; bananas, 71 percent; tangerines, 69 percent; western apples, 61 percent; California oranges, 59 percent; western grapes, 57 percent; western pears, 53 percent; grapefruit, 51 percent; Florida oranges, 42 percent; and eastern apples, 22 percent. Relatively more outlets handled each fruit in the medium-low and medium-high income areas. Even in the highest-income areas, however, more than one-third of the outlets did not handle tangerines or cranberries and about one-fifth did not handle western pears or western grapes. No individual fruit was handled by all outlets in any one of the income groupings.

These data would seem to indicate that there are some possibilities in practically all income areas of increasing retail distribution of some fruits by increasing coverage of outlets. Opportunities seem best in the two lower-income areas. The degree to which increased coverage of outlets in any area might be desirable or economical can not be determined by this study. It will probably require a considerable degree of experimentation related to each fruit before desirable distribution standards can be evolved. It is even possible that concentration of sales in fewer and better-managed outlets might result in the greatest increases in sales.

5/ For description of income areas, see footnote 2 table 5.

Table 5.- Apples: Relation of volume sold weekly to number and proportion of retail outlets, by income areas, New York City, November 1939

Range in weekly sales per store (pounds)	Proportion of all outlets <sup>1/</sup> surveyed in each income area				Proportion of tonnage per income area sold <sup>1/</sup> by outlets in area <sup>2/</sup>				Percentage of outlets, which sold apples in each income area <sup>2/</sup>			
	Low income		High income		Low income		High income		Low income		High income	
	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
<b>Eastern apples:</b>												
None	22	14	3	2	1	2	1	2	14	11	7	2
Less than 50	11	10	7	4	4	4	4	2	12	11	8	4
50 - 99	10	10	8	9	4	5	5	4	16	16	17	10
100 - 199	12	14	16	15	6	5	7	6	15	12	15	16
200 - 299	11	11	15	13	4	6	5	7	6	11	8	13
300 - 399	4	9	8	13	4	6	5	7	16	12	11	13
400 - 599	10	9	12	21	11	9	10	19	20	11	12	21
600 - 899	9	10	15	17	15	16	19	20	22	8	9	17
1,000 - 1,999	7	8	11	11	21	20	28	22	26	6	7	11
2,000 or more	4	5	5	6	36	37	37	26	26	6	7	6
<b>Western apples:</b>												
None	61	39	29	16	11	13	15	4	51	49	46	23
Less than 50	20	30	33	19	16	8	10	8	14	16	23	20
50 - 99	5	10	16	17	12	20	24	15	13	19	18	21
100 - 199	5	11	13	11	12	14	13	14	8	7	6	12
200 - 299	3	4	4	11	7	4	5	21	3	1	2	12
300 - 399	1	1	1	11	5	20	19	15	14	6	5	6
400 - 599	3	3	3	5	2	1	30	20	11	5	3	1
600 or more	2	2	2	1	5	5	20	11	21	5	5	6

<sup>1/</sup> As previously stated only outlets which normally handled some fruits and vegetables were included in this survey.  
<sup>2/</sup> The income group in which each outlet has been placed was determined by the average rentals paid per family in the neighborhood in which the outlet is located. These rentals are from the U.S. Census of 1930 and are median rentals for each census tract. Thirty relatively large areas or neighborhoods, each 10 census tracts (or about 100 square blocks) in size, with all of the 10 census tracts having about the same median rentals, were chosen. Therefore, when a store is placed in a certain income group, it means that median rentals paid by families both in the census tract in which the store is located and in the general neighborhood are within the rental range on which that income group is based. The ranges in median rentals per family on which each income group is based are as follows:

Low income group - median rentals less than \$35 per month  
 Medium-low income group - median rentals \$35 to \$49 per month  
 Medium-high income group - median rentals \$50 to \$64 per month  
 High income group - median rental \$65 or more per month

<sup>3/</sup> Less than 1 percent.

Table 6.- Oranges: Relation of volume sold weekly to number and proportion of retail outlets, by income areas, New York City, November 1939

Range in weekly sales per store (pounds)	Proportion of all outlets <sup>1/</sup> surveyed in each income area					Proportion of tonnage per income area sold by outlets in : area <sup>2/</sup>					Percentage of outlets which sold oranges in each income area				
	Low income		Medium-high income		High income	Low income		Medium-high income		High income	Low income		Medium-high income		High income
	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
<u>California oranges:</u>															
None	59	23	17	6	3	4	2	1	3/	2	23	12	13	3	3
Less than 50	9	9	11	12	13	12	7	4	2	5	32	26	20	12	12
50 - 99	13	20	16	14	17	14	12	8	14	9	18	22	17	18	18
100 - 199	7	17	14	15	15	16	23	18	14	21	20	18	18	18	18
200 - 299	7	15	15	16	18	13	13	14	14	19	9	16	16	19	19
300 - 499	2	7	14	13	18	17	14	21	17	21	3	6	10	18	18
500 - 999	2	5	8	7	17	14	19	21	26	31	1	5	5	6	12
1,000 or more	1	4	5	11	19	28	31	41							
<u>Florida oranges:</u>															
None	42	27	8	7					3/	1	16	5	9	2	2
Less than 50	9	4	8	2					4	6	2	20	22	23	11
50 - 99	12	14	21	11	4	5	8	11	4	13	9	13	22	23	14
100 - 199	7	16	21	13	13	12	5	7	11	5	9	13	14	14	14
200 - 299	5	10	13	12	18	15	10	18	10	12	17	12	15	19	19
300 - 499	10	9	14	9	21	23	23	19	25	19	14	18	10	23	23
500 - 999	8	13	9	21	23	23	47	48	34	52	11	10	6	17	17
1,000 or more	7	7	6	16											

<sup>1/</sup> As previously stated, only outlets which normally handled some fruits and vegetables were included in this survey.

<sup>2/</sup> The income group in which each outlet has been placed was determined by the average rentals per family in the neighborhood in which the outlet is located. These rentals are from the U.S. Census of 1930 and are median rentals for each census tract. Thirty relatively large areas or neighborhoods, each 10 census tracts (or about 100 square blocks) in size, with all of the 10 census tracts having about the same median rentals, were chosen. Therefore, when a store is placed in a certain income group, it means that median rentals paid by families both in the census tract in which the store is located and in the general neighborhood are within the rental range on which that income group is based. The ranges in median rentals per family on which each income group is based are as follows:

Low income group - median rentals less than \$35 per month

Medium-low income group - median rentals \$35 to \$49 per month

Medium-high income group - median rentals \$50 to \$64 per month

High income group - median rental \$65 or more per month

Table 70.-Grapefruit and Tangerines: Relation of volume sold weekly of each fruit to number and proportion of retail outlets, by income areas, New York City, November 1939

Range in weekly sales per store (pounds)	Proportion of all outlets <sup>1/</sup> surveyed in <sup>1/2</sup> each income area			Proportion of tangerine per income area sold by outlets in <sup>1/2</sup> each income area			Percentage of outlets in <sup>1/2</sup> each income area sold specifically for fruit		
	Medium- low income		High income	Low income		High income	Medium- high income		High income
	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
<b>Grapefruit:</b>									
None	51	27	7	2	4	2	3	29	13
Less than 50	14	9	15	6	11	14	2	30	35
50 - 99	15	26	16	11	17	17	6	12	17
100 - 199	6	16	19	8	15	13	8	6	20
200 - 299	3	7	14	7	12	24	29	10	15
300 - 499	4	9	20	23	16	18	21	9	13
500 - 999	6	4	18	39	18	12	31	12	15
1,000 or more	1	2	5	15	13	26	32	5	5
<b>Tangerines:</b>									
None	69	68	49	39	10	22	11	18	48
Less than 50	15	18	19	29	16	8	19	22	56
50 - 99	5	7	14	16	8	11	14	18	21
100 - 199	4	3	10	8	11	13	13	12	10
200 - 299	2	2	6	4	13	24	14	9	6
300 or more	5	2	2	4	58	32	20	16	7

<sup>1/</sup> As previously stated, only outlets which normally handled some fruits and vegetables were included in this survey.  
<sup>2/</sup> The income group in which each outlet has been placed was determined by the average rentals paid per family in the neighborhood in which the outlet is located. These rentals are from the U.S. Census of 1930 and are median rentals for each census tract. Thirty relatively large areas or neighborhoods, each 10 census tracts (or about 100 square blocks) in size, with all of the 10 census tracts having about the same median rentals, were chosen. Therefore, when a store is placed in a certain income group, it means that median rentals paid by families both in the census tract in which the store is located and in the general neighborhood are within the rental range on which that income group is based. The ranges in median rentals per family on which each income group is based are as follows:

Low income group - median rentals less than \$35 per month

Medium-low income group - median rentals \$35 to \$49 per month

Medium-high income group - median rentals \$50 to \$64 per month

High income group - median rental \$65 or more per month

<sup>3/</sup> Less than 1 percent.

Table 8.- Bananas and Cranberries: Relation of volume sold weekly of each fruit to number and proportion of retail outlets, by income areas, New York City, November 1939

Range in weekly sales per store (pounds)	Proportion of all outlets <sup>1/</sup> surveyed in <sup>2/</sup> such income area			Proportion of volume per income area sold by outlets in <sup>2/</sup> such income area			Percentage of outlets, which sold specified fruit in each income area <sup>2/</sup>		
	Low income Percent	Medium- low income Percent	High income Percent	Low income Percent	Medium- low income Percent	High income Percent	Low income Percent	Medium- low income Percent	High income Percent
<b>Bananas:</b>									
None	71	38	13	8	1	1	3/	11	7
Less than 50	3	4	6	2	4	10	5	30	23
50 - 99	9	20	20	17	6	10	11	21	18
100 - 149	6	11	18	20	4	12	11	10	15
150 - 199	3	9	13	16	5	15	13	7	12
200 - 299	2	8	9	15	5	14	24	6	8
300 - 499	2	5	12	14	5	14	33	15	10
500 or more	4	5	9	8	75	38			
<b>Cranberries:</b>									
None	96	73	55	34	9	4	7	3	36
Less than 20	2	7	12	10	17	11	24	16	27
20 - 29	1	9	18	24	32	11	26	19	32
30 - 59	1	4	10	14	33	21	12	29	17
60 - 119	3/	5	3	13	9	33	31	5	18
120 or more	3/	2	2	5	53	33	31	5	9

<sup>1/</sup> As previously stated, only outlets which normally handled some fruits and vegetables were included in this survey.

<sup>2/</sup> The income group in which each outlet has been placed was determined by the average rentals paid per family in the neighborhood in which the outlet is located. These rentals are from the U.S. Census of 1930 and are median rentals for each census tract. Thirty relatively large areas or neighborhoods, each 10 census tracts (or about 100 square blocks) in size, with all of the 10 census tracts having about the same median rentals, were chosen. Therefore, when a store is placed in a certain income group, it means that median rentals paid by families both in the census tract in which the store is located and in the general neighborhood are within the rental range on which that income group is based. The ranges in median rentals per family on which each income group is based are as follows:

Low income group - median rentals less than \$35 per month  
 Medium-low income group - median rentals \$35 to \$49 per month  
 Medium-high income group - median rentals \$50 to \$64 per month  
 High income group - median rentals \$65 or more per month

<sup>3/</sup> Less than 1 percent.

Table 9.- Western Grapes and Western Pears: Relation of volume sold weekly of each fruit to number and proportion of retail outlets, by income areas, New York City, November 1939

Range in weekly sales per store (pounds)	Proportion of all outlets <sup>1/</sup> surveyed in each income area				Proportion of tonnage per income area sold by outlets in same area <sup>2/</sup>				Percentage of outlets, which sold specified fruit in each income area			
	Medium-high income		High income		Low income		High income		Medium-high income		Low income	
	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
<u>Western Grapes:</u>												
None	57	44	17	19								
Less than 50	8	10	18	12	2	7	4	2	19	17	21	15
50 - 99	10	17	31	26	8	17	14	24	31	38	33	
100 - 199	12	15	18	23	20	12	21	26	26	21	28	
200 - 299	5	4	9	11	15	7	18	21	12	8	11	13
300 - 499	4	3	3	5	17	7	11	16	8	6	4	6
500 or more	4	7	4	4	38	66	29	21	9	12	5	5
<u>Western Pears:</u>												
None	53	42	22	19								
Less than 50	21	24	30	28	11	11	12	9	44	41	39	34
50 - 99	10	10	17	14	12	10	15	10	22	18	22	18
100 - 199	7	11	19	18	14	18	29	22	14	18	25	22
200 - 299	3	5	6	13	10	14	16	25	7	9	8	16
300 - 499	3	6	4	5	17	25	14	15	6	10	4	6
500 or more	3	2	2	3	36	22	14	19	7	4	2	4

<sup>1/</sup> As previously stated, only outlets which normally handled some fruits and vegetables were included in this survey.

<sup>2/</sup> The income group in which each outlet has been placed was determined by the average rentals paid per family in the neighborhood in which the outlet is located. These rentals are from the U.S. Census of 1930 and are median rentals for each census tract. Thirty relatively large areas or neighborhoods, each 10 census tracts (or about 100 square blocks) in size, with all of the 10 census tracts having about the same median rentals, were chosen. Therefore, when a store is placed in a certain income group, it means that median rentals paid by families both in the census tract in which the store is located and in the general neighborhood are within the rental range on which that income group is based. The ranges in median rentals per family on which each income group is based are as follows:

Low income group - median rentals less than \$35 per month  
 Medium-low income group - median rentals \$35 to \$49 per month  
 Medium-high income group - median rentals \$50 to \$64 per month  
 High income group - median rental \$65 or more per month

## QUANTITIES OF CANNED FRUITS AND JUICES HANDLED WEEKLY

As previously stated, this study included only outlets which handled fresh fruits. Consequently, the following data do not give a complete picture of canned fruit and juice sales, since no data are available for stores which sold canned goods but did not also sell fresh fruits. In table 2, it was shown that these 1,516 retail outlets handled almost 3 million pounds of fresh fruit weekly during November 1939. In addition, these stores sold 155,365 pounds of five kinds of canned fruits, and 209,666 pounds of six kinds of canned juices weekly during November 1939 (table 10). Sales of canned fruits and juices (365,031 pounds per week) were, therefore, roughly one-eighth as great, pound for pound, as sales of fresh fruits. In the case of apples, the fresh product totaled 952,664 pounds compared with 31,236 pounds of canned applesauce, or roughly in a ratio of about 30 to 1. In August the relationship of fresh apples to applesauce was about 11 to 1. However, it is significant that these 1,516 outlets sold about 63 percent more applesauce in November, a heavy fresh apple month, than 1,543 outlets did in August.

The six leading canned juices made up 57 percent of the combined volume of 365,031 pounds of canned fruits and juices sold (table 10). As in August, tomato juice was outstandingly important, but large volumes of pineapple and grapefruit juice were also handled. Sales of pineapple juice were more than twice as large as of canned pineapple, and sales of canned grapefruit were less than one-third as large as of canned grapefruit juice. Sales of canned peaches were much larger than sales of any other canned fruit. Sales of applesauce, which ranked next to canned peaches in volume of sales, were about double the sales of canned grapefruit and also exceeded sales both of canned pineapple and canned pears.

None of the pushcart operators and none of the wagon or motor hucksters, included in this study, handled any canned fruits or canned juices. Some of the independent fruit and vegetable stores handled canned fruits and canned juices during November 1939, but the quantities were relatively small (about 12 pounds per store per week) (table 11). Meat markets handled about 40 pounds per week during August 1939, and about 85 pounds per week during November 1939. Sales of canned fruits and canned juices in November 1939, seem to have been largely limited to grocery stores. This was true in August 1939, also. Sales of the five leading canned fruits by chain grocery stores averaged about 396 pounds per store each week, and by independent grocery stores about 113 pounds. Sales of the leading six canned juices averaged 534 pounds per week in chain grocery stores, and 156 pounds per week in independent grocery stores.

Sales of canned applesauce averaged almost 85 pounds per week in chain grocery stores, about 20 pounds per week in independent

Table 10.- Relative quantities of leading canned fruits and canned juices sold weekly, as reported by 1,126<sup>1</sup>/retail outlets, New York City, November 1939

Commodity	Quantities sold weekly		Percentage of total sales
	Total <u>Pounds</u>	Average per outlet <u>Pounds</u>	
<u>Canned fruit:</u>			
Peaches .....	53,848	48	15
Applesauce .....	31,236	28	9
Pineapple .....	28,931	26	8
Pears .....	26,096	23	7
Grapefruit .....	15,254	14	4
Total canned fruit .....	155,365	138	43
<u>Canned juice:</u>			
Tomato .....	79,142	70	21
Pineapple .....	61,132	54	17
Grapefruit .....	48,294	43	13
Prune .....	8,023	7	2
Orange .....	6,909	6	2
Grape .....	6,166	5	2
Total canned juice .....	209,666	186	57
Total canned fruit and canned juice .....	365,031	324	100

1/ The 319 pushcart operators and 71 wagon or motor hucksters, who were included in this survey, did not report the sale of any canned fruit or canned juice.

grocery stores, 6 pounds per week in meat markets, and less than 1 pound per week in fruit and vegetable stores.

#### INFLUENCE OF FAMILY INCOMES ON SALES OF FRESH AND CANNED FRUITS AND JUICES

In interpreting these data it must be kept in mind that there are more families served per retail outlet in high-income areas than in low-income areas. A store-by-store enumeration made in about 10 percent of the area of New York City during June 1939, indicates that there were about 110 families per fresh fruit outlet in low-income areas, 115 in medium-low areas, 157 in medium-high areas, and 162 in high-income areas. For the whole city, excluding Staten Island, there were about 136 families served per fresh-fruit outlet.

Table 11.—Relative importance of various types of retail outlets for sales of selected canned fruits and fruit juices, as reported by 1,126<sup>1/</sup> retailers, New York City, November 1939

Commodity	Quantities sold weekly per retail outlet			Average 1,126 retail outlets Pounds	
	422 fruit and vegetable stores Pounds	Grocery stores			
		361 independents Pounds	277 chain stores Pounds		
<u>Canned fruit:</u>					
Peaches	2.2	39.6	136.1	12.5	
Pineapple	1.4	23.8	69.7	6.4	
Applesauce	0.8	19.6	84.7	6.0	
Pears	1.5	19.7	65.0	5.2	
Grapefruit	0.5	10.2	40.1	3.3	
Total canned fruit	6.5	112.9	395.6	34.4	
<u>Canned juice:</u>					
Tomato	1.6	55.3	206.4	20.1	
Pineapple	1.5	47.0	154.0	13.6	
Grapefruit	1.4	36.5	121.9	11.4	
Prune	0.2	6.4	20.0	1.6	
Orange	0.4	4.6	17.9	1.6	
Grape	0.2	5.8	13.8	2.2	
Total canned juice	5.3	155.6	534.0	50.5	
Total canned fruit and canned juice	11.8	268.5	929.6	136.2	
			84.9	324.2	

<sup>1/</sup> The 319 pushcart operators and 71 wagon or motor hucksters, who were included in this survey, did not report the sale of any canned fruit or canned juices.

### Income and Sales of Fresh Fruit

During August 1939, weekly sales of selected fruits averaged 1,332 pounds per store in areas of lowest income per family, and 2,327 pounds per store in highest-income neighborhoods. During November 1939, sales of selected fruits averaged 1,287 pounds per week in lowest-income areas, and 2,900 pounds per week in highest-income areas (table 12). In other words, during both periods fresh fruit sales per retail outlet were much larger in high-income areas than in low-income areas. In August, high-income area fruit sales per outlet were somewhat less than double the low-income area sales, whereas in November high-income area sales were considerably more than double low-income area sales. This may be partly because many consumers with high incomes leave the city on vacations during August. In low-income areas, sales of fresh fruit per store were relatively larger in August than in November.

### Income and Canned Goods Sales

As in August 1939, fresh-fruit outlets in low-income areas do not seem to make up in sales of canned fruits and juices what they lack in sales of fresh fruit. Sales of the five leading canned fruits were only 56 pounds per week per store in low-income areas in comparison with 228 pounds in high-income areas (table 13). Similarly, sales of canned juices averaged 65 pounds per store per week in low-income areas, and 303 pounds in high-income areas.

Sales of canned applesauce were almost five times more per store in high-income areas than in low-income areas. Consumers in high-income areas can, undoubtedly, afford to buy fresh apples and make applesauce. Convenience, however, together with acceptable quality of the applesauce available in cans, seems to have influenced even well-to-do consumers to buy canned applesauce.

### Income and Realized Retail Prices

As in August 1939, there was likewise a consistent relationship between the average family income (as measured by the median rental paid in each area) and the retail price realized per pound for various fruits during November 1939.

Eastern apples sold for 2.8 cents per pound in the lowest-income areas, and 4.7 cents per pound in the highest-income areas, a difference of about 70 percent (table 14). Western apples sold for 5.7 cents per pound in the lowest-income areas, and 8.0 cents per pound in the highest, a difference of 40 percent. In the case of eastern apples, the difference in average realized retail price per pound, between the lowest and the highest-income areas was 1.9 cents per pound. For western apples this difference was 2.3 cents per pound.

Table 12.- Average quantities of selected fruits sold weekly in each income area, as reported by 1,516 retail outlets, New York City,  
November 1939

Fruit	Quantity sold weekly per outlet in each income area 1/			
	Low income	Medium-low income	Medium-high income	High income
	Pounds	Pounds	Pounds	Pounds
<u>Apples:</u>				
Eastern	441	508	573	630
Western	60	80	80	177
<u>Oranges:</u>				
California	70	194	260	434
Florida	276	360	324	616
Grapefruit	107	148	251	436
Tangerines	46	29	54	60
Bananas	110	126	184	221
<u>Pears:</u>				
Eastern	16	7	8	12
Western	73	90	100	128
<u>Grapes:</u>				
Eastern	1	10	2	2/
California	85	169	121	131
Cranberries	2	19	18	37
Honeydew melons	2/	2/	1	15
Other melons	-	-	-	3
Total all fruit	1,287	1,740	1,976	2,900
Index numbers, all fruit	100	135	154	225

1/ For explanation of income areas, see footnote 2 table 5, page 10.

2/ Less than 1 pound.

Table 13.- Relation of family income to weekly sales of important canned fruits and canned juices per retail outlet, as reported by 1,126 retail outlets, New York City, November 1939

Commodity	Quantity sold weekly per retail outlet in each income area 1/			
	Low income	Medium-low income	Medium-high income	High income
	Pounds	Pounds	Pounds	Pounds
<u>Canned fruit:</u>				
Peaches	24	39	41	73
Pineapple	10	19	22	42
Applesauce	10	23	21	47
Pears	7	14	21	41
Grapefruit	5	9	10	25
Total canned fruit	56	104	115	228
<u>Canned juice:</u>				
Tomato	22	48	61	122
Pineapple	20	40	61	79
Grapefruit	16	32	35	73
Grape	2	4	5	9
Orange	2	5	6	9
Prune	3	5	8	11
Total canned juice	65	134	176	303
Total canned fruit and canned juice	121	238	291	531

1/ For explanation of income areas, see footnote 2 table 5, page 10.

California oranges brought 6.1 cents per pound in lowest-income areas, and 7.6 cents per pound in highest-income neighborhoods (about 25 percent difference). Comparable prices for other fruits were as follows: Florida oranges, 3.3 cents and 4.0 cents per pound; grapefruit, 3.4 cents and 4.7 cents; bananas, 3.1 and 5.5 cents; eastern pears, 3.3 and 5.2 cents; western pears, 5.7 and 7.7 cents; western grapes, 6.2 and 9.6 cents; and tangerines, 4.6 and 7.4 cents. How much of these variations resulted from differences in retail service and quality characteristics of the fruit is not known. Probably these data are most useful in indicating the difference in level of prices per pound which consumers in each income area are able and willing to pay.

Table 14.— Relation of family income to average realized retail prices and gross margins on various fruits, as reported by New York City Retailers, November 1939

Fruit	Realized retail prices and margins in each income area. <sup>1/</sup>										Average all areas Gross margin Percent age of retail price Retail price per lb Cents		
	Low income			Medium-low income			Medium-high income			High income			
	Gross margin Percent	Retail price per lb Cents	Age of retail price per lb Cents	Gross margin Percent	Retail price per lb Cents	Age of retail price per lb Cents	Gross margin Percent	Retail price per lb Cents	Age of retail price per lb Cents	Gross margin Percent	Retail price per lb Cents	Age of retail price per lb Cents	
Apples:													
Eastern	2.8	1.1	39	3.5	1.3	39	4.1	1.8	44	4.7	2.0	3.8	1.6
Western	5.7	1.3	23	6.5	1.7	26	6.9	1.9	28	8.0	2.7	7.1	2.1
Oranges:													
California	6.1	1.2	20	6.3	1.4	22	6.6	1.5	23	7.6	2.7	7.0	1.9
Florida	3.3	0.8	24	3.4	0.9	26	3.7	1.0	37	4.0	1.3	3.7	1.1
Grapefruit	3.4	0.7	21	4.0	1.0	25	4.3	1.2	28	4.7	1.4	30	4.3
Bananas	3.1	0.9	29	4.2	0.6	14	4.7	0.7	15	5.5	1.1	20	4.5
Pears:													
Eastern	3.3	1.1	33	3.9	1.4	36	3.9	1.3	33	5.2	2.1	40	4.0
Western	5.7	1.4	25	6.8	1.9	28	7.3	2.1	29	7.7	2.6	34	6.9
Grapes:													
Western	6.2	1.1	18	5.7	1.0	18	7.1	1.2	17	9.6	2.8	29	7.1
Eastern	3.4	0.2	6	3.3	0.7	21	3.4	0.6	18	3.2	3/	3/	3.7
Tangerines	4.6	1.2	26	6.2	2.1	31	7.0	2.2	31	7.4	2.7	36	6.3
Cranberries	14.0	1.7	12	15.0	2.2	15	15.0	2.5	17	16.0	3.7	23	15.4
Honeydew melons	6.0	1.9	32	6.4	2.4	38	8.0	2.4	30	9.4	3.4	36	9.2
Other melons	—	—	—	—	—	—	—	—	—	15.3	3.7	28	2/

<sup>1/</sup> For explanation of income areas, see footnote 2, table 5, page 10.

<sup>2/</sup> Sales reported only in high-income areas.

<sup>3/</sup> Too few sales to be significant.

### Income and Average Retail Margins

During November 1939, average gross retail margins were generally greatest in the highest-income areas. There were some notable exceptions; for example, the average gross retail margin on bananas was 29 percent in the lowest-income area and 20 percent in the highest-income areas.

The percentage gross margin on fruits may not be as significant as the actual margin in cents per pound. For example, the gross margin on eastern apples in highest-income areas (2 cents per pound) was about 82 percent higher than in low-income areas (1.1 cents per pound), but the gross margin on western apples in high-income areas (2.7 cents per pound) was more than twice as high as in low-income areas (1.3 cents per pound) (table 14). On California oranges, gross margins ranged from 1.2 cents per pound in lowest-income areas to 2.3 cents per pound in highest-income areas (a difference of about 92 percent); but gross margins on Florida oranges were 0.8 cent and 1.3 cents per pound, respectively (a difference of about 62 percent). The average gross margin on a pound of grapefruit was exactly twice as large in the highest-income neighborhoods as in the lowest; but on western grapes, the gross margin in highest-income neighborhoods (2.8 cents per pound) was 15 $\frac{1}{4}$  percent larger than in low-income areas (1.1 cents per pound).

#### GROSS RETAIL MARGINS

The gross retail margin as used in this report is the difference between the cost delivered at the retail outlet for each package of fruit and the amount realized from retail sales for that same quantity after making adjustments for spoilage losses. The data show that gross retail margins on each fruit differed greatly among individual outlets and between groups of outlets. Cost of operation as a percentage of total dollar sales establishes the minimum average percentage margin on which any outlet can continue to operate. Individual items may, and often do, bring more or less than this minimum. It is realized that there are many factors which influence the wholesale price of commodities purchased. Also the reaction of the consumer to retail prices and the competition of other retailers influence retail prices. The many factors that determine these two prices determine the maximum amount of the gross retail margin that can be obtained, but the retailer for one reason or another may not get the maximum margin. This preliminary report is not intended to treat all angles of the question; instead it shows what margins were realized by various groups of retailers from various types of fruits. Other aspects of the problem will be discussed in later reports.

### Range by Type of Outlet

As in August, average gross retail margins on fruits sold during November varied greatly among the various retail outlets. As an average for all fruits, only 7 percent of the 1,516 retail outlets obtained less than 15 percent gross margin. None of the meat markets and only 13 percent of the chain grocery stores took less than 15 percent gross margin. The gross margin of 40 percent of the 1,516 stores was from 20 to 29 percent, and of 37 percent from 30 to 49 percent. Only 3 percent of the 1,516 outlets obtained a gross margin of 50 percent or more (table 15). As a rule, chain grocery stores tended to take lower percentages of gross retail margins than outlets of other types. For example, 69 percent of the chain grocery stores obtained less than 25 percent gross margin as compared with 19 percent of the hucksters, 23 percent of the meat markets, 31 percent of the independent grocery stores, 33 percent of the independent fruit and vegetable stores, and 38 percent of the pushcart operators. On the other hand, only 8 percent of the chain grocery stores had gross retail margins of 35 percent or more in contrast with 46 percent of the wagon or motor hucksters, 33 percent of the meat markets, 30 percent of the pushcart operators, 29 percent of the independent grocers, and 22 percent of the fruit and vegetable stores.

In the August 1939 survey, 4 percent of the outlets reported operation at a loss, insofar as fruit was concerned. In the November 1939 survey, only 1 percent of all outlets reported any loss operations on fruits. In August 1939, 6 percent of the chain grocery stores and also 6 percent of the pushcart operators reported loss operations on fruit. In November, such losses were indicated for 1 percent or less of the outlets in each case. The independent meat markets and independent grocery stores, each reported loss operations on the part of 2 percent of the outlets.

### Differences between Outlets for Selected Fruits

There were striking differences between various types of retail outlets in average gross margins on individual fruits. On eastern apples, gross retail margins ranged from an average of 1 cent per pound by pushcart operators and wagon or motor hucksters, to 2.1 cents per pound by independent grocers. The highest average percentage gross margin on eastern apples (48 percent) was taken by meat markets, and the lowest (30 percent) by chain grocery stores (table 15). On western apples, gross retail margins ranged from 1.3 cents per pound (or 24 percent) by pushcart operators, to 2.8 cents per pound (or 35 percent) by independent grocers. In no type of outlet was the average gross margin in cents per pound as high on eastern apples as on western apples, but percentage gross margins were, in every type of outlet, higher on eastern apples than on western apples.

Table 15. - Variations in gross retail margins on all fresh fruit handled, as reported by 1,516  
retail outlets, New York City, November 1939.

Range in average GROSS MARGIN (percent)	Percentage of fruit sales in each group, by type of outlet						Percent outlets	
	Fruit and vegetable stores		Grocery Stores		Meat markets			
	Independents	Percent	Chain Stores	Percent	Fleshcart operators	Percent		
Less than 15	4	6	13	--	9	6	7	
15 - 19	10	10	21	6	11	6	12	
20 - 24	19	15	35	17	18	7	20	
25 - 29	22	20	19	21	17	17	20	
30 - 34	23	18	4	21	14	18	16	
35 - 49	22	27	8	33	22	36	21	
50 or more	1/	2	--	--	8	10	3	
Loss	1/	2	1/	2	1	--	1	
Unknown 2/	--	1/	--	--	--	--	1/	
Total number of outlets	422	361	277	66	319	71	1516	

1/ Less than 1 percent.

2/ Stores which did not handle specified fruits.

Table 16.—Realized retail prices per pound, and gross margins on selected fruits sold by type of retail outlet, New York City, November 1939

On California oranges, gross retail margins ranged from 1.3 cents per pound (or 24 percent) by pushcart operators, to 2.2 cents per pound (or 30 percent) by meat markets. On Florida oranges, pushcart operators likewise took the lowest average retail margin (six-tenths of a cent per pound, or 20 percent of gross sales), and independent grocers the highest (1.4 cents per pound, or 33 percent).

Of the selected fruits covered by this survey, pushcart operators were the low-margin outlet for all but bananas, eastern and western grapes, and cranberries, and ranked among the lowest on these also. Margins taken by pushcart operators for grapefruit averaged 0.6 cent per pound (19 percent) in contrast with 1.6 cents per pound (33 percent) by independent grocers.

The lowest average retail gross margin per pound for all selected fruits (1 cent per pound) was taken by the pushcart operators, but chain grocery stores and wagon or motor hucksters were close seconds (each averaged 1.2 cents per pound). Meat markets and fruit and vegetable stores each averaged 1.7 cents per pound, and independent grocery stores were highest with 1.9 cents per pound.

Differences in margins on a percentage basis were much less pronounced than differences in margins per pound. A high retail price per pound and a high percentage gross margin were not necessarily associated with one another. For example, the percentage gross retail margin (45 percent) on eastern apples, on which 4.7 cents per pound was realized by independent grocery stores, was identical with that on eastern apples sold by wagon or motor hucksters at 2.2 cents per pound. Fruit and vegetable stores took the same percentage gross margin (30 percent) for western apples which sold at 7.3 cents per pound as did wagon or motor hucksters for western apples which sold at 5.7 cents per pound. Similar situations were found in connection with the other selected fruits (table 16).

#### GROSS MARGINS AND VOLUME OF SALES

The November survey seems to confirm the findings reported in the two previous surveys <sup>6/</sup> which were to the effect that low gross retail margins are not usually associated with the largest physical volume of retail sales. None of the fruits, included in the November study, was sold in greatest volume per outlet where the percentage gross margin was lowest, as will be observed from the following brief analysis of sales of each fruit.

<sup>6/</sup> Rasmussen, M.P., and Quitslund, F.A., Some Facts Concerning Competition Between Apples and Other Fruits at Retail, New York City, FCA Misc. Report 19, 66 pp. 1939 (mimeographed); and Rasmussen, M.P., Quitslund, F.A., and Cake, E.W., Some Facts Concerning Competition Between Apples and Other Fruits at Retail, New York City, August 1939, FCA Misc. Report 25, 76 pp. 1940 (mimeographed).

### Margins on Eastern Apples 1/

Out of the 1,516 retail outlets, 1,341 (or 88 percent) handled eastern apples (table 17). Only 4 percent of these outlets handled eastern apples on a margin of less than 15 percent, and sales in such outlets averaged 381 pounds per week. On the other hand, 29 percent handled eastern apples on a gross margin of 40 to 49 percent, and sales averaged 677 pounds per week. Largest sales per week (753 pounds) were reported by the 3 percent of these outlets which handled eastern apples on a gross margin of 60 to 69 percent. The largest volume of eastern apples per week was sold by the independent fruit and vegetable stores, chain grocery stores, and independent meat markets that obtained a gross margin of 50 to 59 percent; by the independent grocery stores and wagon or motor hucksters that obtained a gross margin of 60 to 69 percent; and by the pushcart operators getting a gross margin of 40 to 49 percent (table 17).

### Margins on Western Apples

Slightly less than two-thirds of the 1,516 outlets handled western apples during November. Approximately one-eighth of these outlets obtained a gross margin of less than 15 percent (table 18). Their sales averaged 153 pounds per week. The group of retailers that averaged largest weekly sales per store (219 pounds) took a gross margin of 40 to 49 percent. Largest weekly sales per store were reported by those chain grocery stores with a gross margin of 40 to 59 percent; by those independent fruit and vegetable stores, meat markets, and wagon or motor hucksters which operated on a gross margin of 40 to 49 percent; by those independent grocers who took a margin of 35 to 39 percent; and by those pushcart operators who obtained a gross margin of 30 to 34 percent. In no type of outlet were largest sales per week obtained by the outlets with lowest gross margins.

### Margins on California Oranges

Slightly more than 7 out of 10 of these outlets handled California oranges during November. The gross margin group with the largest number of outlets (17 percent) sold California oranges on gross margins of less than 15 percent, and on the average disposed of 282 pounds per store each week (table 19). Largest weekly sales per store (463 pounds) were reported by the outlets (9 percent of total outlets) with a gross margin of 35 to 39 percent; and second largest weekly sales (434 pounds) by those outlets which took a margin of 40 to 49 percent. November was unlike August in this respect. During August the largest volume of California oranges was sold by stores which operated at a loss. With the notable exception of pushcart operators, weekly sales of California oranges by all

1/ Analysis by income areas appears in the section which follows: "Income Areas and Gross Retail Margins."

Table 17. Apples (Eastern): Relation of gross retail margin to quantity sold weekly per retail outlet 1, New York City, November 1939

Range in average gross margin (percent)	Weekly sales of eastern apples per outlet, by type of store				Average 1,341 retail outlets Pounds
	Grocery stores		meat markets	wagon or motor hucksters	
	Independents	Chain stores	operators	Pounds	
Pounds	Pounds	Pounds	Pounds	Pounds	Pounds
Less than 15					
15 - 19	432	55	408	300	381
20 - 24	660	147	324	288	375
25 - 29	338	251	442	---	437
30 - 34	489	162	576	552	458
35 - 39	556	190	795	395	665
40 - 49	451	437	670	1,114	619
50 - 59	701	320	315	807	677
60 - 69	736	411	953	1,194	684
70 or more	538	583	564	525	753
	480	120	---	936	326
Loss sales	288	66	245	204	960
			---	48	180
Percentage of stores in each classification					
Percent	Percent	Percent	Percent	Percent	Percent
Less than 15					
15 - 19	1	2	14	2	4
20 - 24	2	1	12	1/	4
25 - 29	3	2	31	9	9
30 - 34	5	5	15	8	8
35 - 39	9	8	7	6	9
40 - 49	15	16	6	16	14
50 - 59	40	35	4	25	29
60 - 69	21	26	7	13	18
70 or more	3	1	6	2	5
Loss sales	1	2/	3	3	1
			---	1	1

1/ The above data include only those stores which actually handled eastern apples. Stores handling eastern apples were in the following proportions to total stores of each type included in this survey: Fruit and vegetable stores, 99 percent; independent grocery stores, 83 percent; chain grocery stores, 98 percent; meat markets, 97 percent; pushcart operators, 70 percent; wagon or motor hucksters, 94 percent; and all retail outlets, 76 percent.

2/ Less than 1 percent.

Table 18 - Apples (Western): Relation of gross retail margin to quantity sold weekly per retail outlet, 1/ New York City, November 1939

Range in average gross margin (percent)	Weekly sales of western apples per outlet, by type of store										Average 934 retail outlets Pounds
	Grocery stores			60 meat markets			77 pushcart operators			12 wagon or motor hucksters	
	Fruit and vegetable stores	Independents	Chain stores	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	
Less than 15	124	245	58	245	121	192	88	153			
15 - 19	149	117	69	183	66	261	88	162			
20 - 24	105	151	70	213	333	44	44	142			
25 - 29	118	160	142	311	73	73	73	136			
30 - 34	131	157	220	557	176	176	152				
35 - 39	158	264	204	248	132	132	200				
40 - 49	210	235	335	279	220	220	219				
50 - 59	166	408	253	44	44	44	163				
60 or more	84	44	220	220	220	220	79				
Loss sales	70	31	88	144	301	301	90				
Percentage of stores in each classification											
Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Less than 15	11	9	15	3	21	8					
15 - 19	10	9	11	3	17	18					
20 - 24	15	13	32	17	21	8					
25 - 29	19	12	18	24	17	25					
30 - 34	18	12	6	10	7	25					
35 - 39	12	19	9	18	5	8					
40 - 49	10	16	4	18	4	8					
50 - 59	1	4	1	3	1	1					
60 or more	2/	1	1	2	1	1					
Loss sales	4	5	4	7	2	—					

1/ The above data include only those stores which actually handled western apples. Stores handling western apples were in the following proportions to total stores of each type included in this survey: Fruit and vegetable stores, 31 percent; Independent grocery stores, 68 percent; chain grocery stores, 72 percent; meat markets, 91 percent; pushcart operators, 24 percent; wagon or motor hucksters, 17 percent; and all retail outlets, 62 percent.

2/ Less than 1 percent.

Table 19 - Oranges (California): Relation of gross retail margin to quantity sold weekly per retail outlet 1/. New York City, November 1939

Weekly sales of California oranges per outlet, by type of store						Average retail outlets
Range in average gross margin (percent)	389 fruit and vegetable stores	Grocery stores	62 meat markets	75 pushcart operators	32 wagon or motor hucksters	1,074
	Pounds	277 independents	239 chain stores	Pounds	Pounds	Pounds
Less than 15	242	251	359	245	381	282
15 - 19	342	128	235	272	350	257
20 - 24	315	212	318	366	453	308
25 - 29	301	330	366	487	362	328
30 - 34	358	187	398	511	298	341
35 - 39	493	412	367	735	373	468
40 - 49	401	399	730	341	360	434
50 or more	292	84	770	1,260	163	373
Loss sales	284	187	170	183	41	—
Percentage of stores in each classification						
Percent	Percent	Percent	Percent	Percent	Percent	Percent
Less than 15	17	18	17	10	23	6
15 - 19	13	15	10	15	19	16
20 - 24	15	11	16	15	21	25
25 - 29	14	13	12	8	8	22
30 - 34	12	11	22	16	8	13
35 - 39	12	8	5	10	4	9
40 - 49	14	3	3	12	9	9
50 or more	2	2	1	3	4	2
Loss sales	6	8	14	11	4	6

1/ The above data include only those stores which actually handled California oranges.

Stores handling California oranges were in the following proportions to total stores of each type included in this survey: Fruit and vegetable stores, 92 percent; independent grocery stores, 77 percent; chain grocery stores, 86 percent; meat markets, 94 percent; pushcart operators, 24 percent; wagon or motor hucksters, 45 percent; all retail outlets, 71 percent.

other types of outlets averaged largest where gross margins of 35 to 49 percent were taken.

#### Margins on Florida Oranges

Slightly more than three-fourths of the retailers handled Florida oranges during November. Only 3 percent of such retailers reported loss sales of Florida oranges in comparison with 8 percent of those handling California oranges. Whereas largest sales of California oranges per store were reported by those outlets which took a gross margin of 35 to 39 percent, greatest sales of Florida oranges were reported by outlets operating on a 15 to 19 percent gross margin, and second largest sales by those taking 20 to 24 percent (table 20). Sales of Florida oranges per store per week tended to decline as the gross margin rose, and the smallest sales were reported by 4 percent of the outlets which charged a gross margin of 50 percent or more on Florida oranges.

#### Margins on Grapefruit

Slightly more than three-fourths of these retail outlets handled grapefruit during November. Only 4 percent of those that handled grapefruit reported loss sales, and the weekly volume of sales was lower for this group which sold at a loss than for any other margin group (table 21). The largest volume of grapefruit sold weekly per store was reported by 9 percent of the stores which operated on a margin of 40 to 49 percent; but the second largest volume per week was reported by outlets with gross margins ranging from 15 to 19 percent. Almost half of these outlets took from 20 to 34 percent gross margin on grapefruit.

#### Margins on Bananas

Slightly less than two-thirds of these retail outlets handled bananas during November. Of those that did so, a remarkably large proportion (ranging from 10 percent of the chain grocery stores to 35 percent of the fruit and vegetable stores, and averaging 27 percent of all stores) reported handling bananas at a loss (table 22). Despite this situation, in no type of outlet were largest weekly sales reported by those having losses. As a matter of fact, the largest average weekly sales per store (803 pounds) was reported by 2 percent of the outlets which obtained a gross margin of 50 percent or more, and the second largest sales by those operating on a gross margin of 35 to 39 percent. Almost half of the outlets, however, sold bananas either at a loss or on a gross margin of less than 15 percent.

#### Margins on Western Pears

Slightly less than two-thirds of all outlets handled western pears. For the entire group, which actually handled western pears,

Table 20. Oranges (Florida): Relation of gross retail margin to quantity sold weekly per outlet, 1/  
New York City, November 1939

Range in average gross margin (percent)	Weekly sales of Florida oranges per outlet, by type of store			Average wagon or motor hucksters retail outlets Pounds
	Grocery stores		49	
	Independents	Chain stores	Pounds	
360 fruit and vegetable stores	360	276	257	57 meat markets Pounds
Pounds	Pounds	Pounds	Pounds	Pounds
Less than 15	247	299	315	519
15 - 19	469	212	670	1,139
20 - 24	295	386	717	1,102
25 - 29	324	208	831	732
30 - 34	328	299	436	695
35 - 39	394	275	1,129	700
40 - 49	384	273	699	309
50 or more	267	192	1,197	97
Loss sales	268	165	420	450
				487
				90
				536
Percentage of stores in each classification				
Percent	Percent	Percent	Percent	Percent
Less than 15	6	6	3	14
15 - 19	7	6	5	24
20 - 24	12	10	2	16
25 - 29	17	13	21	24
30 - 34	15	16	14	7
35 - 39	15	17	4	20
40 - 49	18	21	6	6
50 or more	6	6	2	2
Loss sales	4	3	1	3
				2
				2
				3

1/ The above data include only those stores which actually handled Florida oranges. Stores handling Florida oranges were in the following proportions to total stores of each type included in this survey: Fruit and vegetable stores, 90 percent; independent grocery stores, 76 percent; chain grocery stores, 93 percent; meat markets, 66 percent; pushcart operators, 48 percent; wagon or motor hucksters, 69 percent; all retail outlets, 77 percent.

Table 21. Grapefruit: Relation of gross retail margin to quantity sold weekly per retail outlet, 1/  
New York City, November 1939

Range in average gross margin (Percent)	Weekly sales of grapefruit per outlet, by type of store		Average retail outlets	
	401 fruit and vegetable stores			
	Grocery stores 275	65 meat markets		
Less than 15				
15 - 19	177	129	267	
20 - 24	265	100	326	
25 - 29	234	174	276	
30 - 34	255	234	314	
35 - 39	291	235	300	
40 - 49	262	201	300	
50 or more	430	322	300	
Loss sales	243	288	273	
	78	52	184	
Percentage of stores in each classification				
Percent	Percent	Percent	Percent	
Less than 15				
15 - 19	13	9	13	
20 - 24	11	7	14	
25 - 29	16	14	18	
30 - 34	16	20	13	
35 - 39	14	15	17	
40 - 49	13	10	13	
50 or more	9	13	9	
Loss sales	5	4	4	

1/ The above data include only those stores which actually handled grapefruit. Stores handling grapefruit were in the following proportions to total stores of each type included in this survey: Fruit and vegetable stores, 95 percent; independent grocery stores, 76 percent; chain grocery stores, 98 percent; pushcart operators, 32 percent; wagon hucksters, 45 percent; and all retail outlets, 76 percent, meat markets, 98 percent.

Table 22. Bananas: Relation of gross retail margin to quantity sold weekly per retail outlet,  $\frac{1}{2}$   
New York City, November 1939

Range in average gross margin (Percent)	369 fruit and vegetable stores <u>Pounds</u>	Weekly sales of bananas per outlet, by type of store						Average 975 retail outlets <u>Pounds</u>	
		Grocery stores		meat markets <u>Pounds</u>		34 pushcart operators <u>Pounds</u>			
		Independents <u>Pounds</u>	chain stores <u>Pounds</u>	meat markets <u>Pounds</u>	pushcart operators <u>Pounds</u>	wagon or motor hucksters <u>Pounds</u>			
Less than 15	191	132	192	519	---	138	200		
15 - 19	238	134	160	360	---	---	136		
20 - 24	255	129	153	309	110	---	181		
25 - 29	271	202	401	179	594	495	296		
30 - 34	400	200	120	479	1,100	---	359		
35 - 39	261	101	170	412	2,448	660	458		
40 - 49	269	232	293	232	1,014	147	326		
50 or more	275	126	520	---	2,260	1,760	802		
Loss sales	186	121	267	107	339	192	191		
Percentage of stores in each classification									
Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	
Less than 15	23	16	28	23	---	15	22		
15 - 19	9	7	8	7	---	---	11		
20 - 24	9	6	25	8	3	---	12		
25 - 29	8	11	9	17	15	15	9		
30 - 34	4	7	1	6	6	---	5		
35 - 39	5	5	2	7	15	8	5		
40 - 49	7	10	1	7	20	23	7		
50 or more	2	4	1	---	15	8	2		
Loss sales	35	32	10	23	26	21	27		

<sup>1/</sup> The above data include only those stores which actually handled bananas. Stores handling bananas were in the following proportions to total stores of each type included in this survey: fruit and vegetable stores, 87 percent; independent grocery stores, 73 percent; chain grocery stores, 85 percent; meat markets, 91 percent; pushcart operators, 11 percent; wagon or motor hucksters, 18 percent; and all retail outlets, 64 percent.

<sup>2/</sup> Less than 1 percent.

largest weekly sales per store (171-172 pounds) were reported by outlets that took margins of 35 to 49 percent, in contrast with 152 pounds per week by those obtaining less than 15 percent gross margin (table 23).

#### Margins on Western Grapes

Only about two-thirds of the retail outlets surveyed handled western grapes during November, 1939. Largest weekly sales (290 pounds) were reported by a small number of outlets with gross margins of 50 percent or more, but 14 percent of these outlets which took from 15 to 19 percent gross margin attained sales of 289 pounds per week and 10 percent of the outlets reported average sales of 237 pounds per week on a gross margin of 25 to 29 percent (table 24). Loss sales on western grapes were reported by a relatively high proportion of the wagon or motor hucksters (37 percent) and chain grocery stores (18 percent), and averaged 10 percent of all outlets handling. In the case of chain grocery stores, loss sales accounted for the second highest weekly volume reported (249 pounds), but 2 percent of the chain stores with gross margins of 50 percent or more reported average sales of 261 pounds per week. For all other types of retail outlets, only relatively small quantities of western grapes were sold in connection with loss operations. The largest sales per week by any one type of outlet (4,980 pounds) were by wagon or motor hucksters who took a margin of 15 to 19 percent.

#### Margins on Tangerines

Somewhat less than half of the 1,516 retail outlets handled tangerines during November. For the 651 stores which did so, largest weekly sales per store (13 $\frac{1}{4}$  pounds) were reported by about one-sixth of the stores with gross margins of 30 to 34 percent; but sales by outlets with margins of 20 to 24 percent and of 15 to 19 percent ranked second and third, respectively in weekly sales. Loss sales were reported by 3 percent of the stores handling tangerines (table 25).

#### Margins on Cranberries

Only 505 out of 1,516 retail outlets (33 percent) handled cranberries during November. The largest volume of cranberries handled weekly per store by chain grocers (248 pounds) was reported by the 9 percent of the stores which had loss sales (table 26). For all 505 retail outlets handling cranberries, 6 percent showed loss sales. The gross retail margin obtained seems to have had little relationship to weekly sales of cranberries. A gross margin of 40 to 49 percent was accompanied by average weekly sales of 6 $\frac{1}{4}$  pounds, but sales of 61 pounds were shown by outlets that took a margin of 30 to 34 percent. When less than 15 percent gross margin was taken, sales averaged 60 pounds per week. The largest sales by any one type of outlet (381 pounds per week) was reported by 5 percent of the meat markets with gross margins of less than 15 percent.

Table 23. Pears (Western): Relation of gross retail margin to quantity sold weekly per retail outlet, 1/ New York City, November 1939

Range in average gross margin (Percent)	Weekly sales of western pears per outlet, by type of store						Average 975 retail outlets Pounds	
	404 fruit and vegetable stores		57 meat markets		30 wagon or motor hucksters			
	Grocery stores 211	Independents 152	chain stores Pounds	Pounds	pushcart operators Pounds	Pounds		
Less than 15	101	113	98	276	294	107	152	
15 - 19	172	55	144	125	227	153	153	
20 - 24	131	76	105	150	369	126	147	
25 - 29	140	127	111	115	251	76	138	
30 - 34	146	142	121	152	234	72	148	
35 - 39	140	160	235	118	310	138	171	
40 - 49	176	145	226	210	148	--	172	
50 or more	150	136	148	230	322	69	155	
Loss sales	71	32	253	29	46	---	66	
Percentage of stores in each classification								
Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	
Less than 15	11	13	10	9	20	10	12	
15 - 19	12	8	16	12	12	10	12	
20 - 24	16	15	14	7	16	13	15	
25 - 29	20	13	24	7	12	27	18	
30 - 34	16	13	14	19	13	23	15	
35 - 39	11	14	6	25	11	10	11	
40 - 49	8	17	10	16	11	--	11	
50 or more	2	3	5	2	2	7	3	
Loss sales	4	4	1	1	3	3	3	

<sup>1/</sup> The above data include only those stores which actually handled western pears. Stores handling western pears were in the following proportions to total stores of each type included in this survey: fruit and vegetable stores, 96 percent; independent grocery stores, 58 percent; chain grocery stores, 55 percent; meat markets, 86 percent; pushcart operators, 32 percent; wagon or motor hucksters, 42 percent; and all retail outlets, 64 percent.

Table 24. Grapes (western): Relation of gross retail margin to quantity sold weekly per retail outlet<sup>1/</sup>, New York City, November 1939

Range in average gross margin (Percent)	Weekly sales of western grapes per outlet, by type of store						Average 963 retail outlets Pounds
	Grocery stores			59 meat markets		33 wagon or motor hucksters	
	402 fruit and vegetable stores	191 independents	170 chain stores	Pounds	Pounds	Pounds	
Less than 15	163	148	163	314	248	—	177
15 - 19	141	103	140	122	273	4,980	289
20 - 24	139	83	153	152	422	150	161
25 - 29	131	160	140	172	843	103	237
30 - 34	171	106	143	208	364	103	160
35 - 39	178	205	121	159	140	84	165
40 - 49	133	133	158	412	64	56	183
50 or more	350	224	261	—	—	—	290
Loss sales	93	85	249	112	184	89	154
Percentage of stores in each classification							
Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Less than 15	29	22	27	19	40	—	—
15 - 19	15	9	19	13	16	—	—
20 - 24	20	12	9	12	14	12	14
25 - 29	8	16	6	13	9	24	16
30 - 34	8	13	8	12	4	9	10
35 - 39	7	6	7	10	2	9	9
40 - 49	4	13	4	12	1	6	6
50 or more	1	1	2	—	—	3	1
Loss sales	8	8	18	9	14	37	10

<sup>1/</sup> The above data include only those stores which actually handled western grapes. Stores handling western grapes were in the following proportions to total stores of each type included in this survey: Fruit and vegetable stores, 95 percent; independent grocery stores, 53 percent; chain grocery stores, 61 percent; meat markets, 89 percent; pushcart operators, 34 percent; wagon or motor hucksters, 46 percent; and all retail outlets, 64 percent.

Table 25. Tangerines: Relation of gross retail margin to quantity sold weekly per retail outlet 1/  
New York City, November 1939

Range in average gross margin (Percent)	Weekly sales of tangerines per outlet, by type of store						Average 651 retail outlets	
	276		Grocery stores		44 meat markets			
	Pounds	Pounds	independents	chain stores	Pounds	Pounds		
Less than 15	115	76	40	40	160	194	103	
15 - 19	114	123	53	160	213	67	126	
20 - 24	111	68	56	40	296	40	129	
25 - 29	86	82	101	107	240	107	101	
30 - 34	98	126	110	371	280	33	134	
35 - 39	99	94	75	128	340	240	111	
40 - 49	90	75	117	95	217	57	100	
50 or more	83	49	48	152	176	—	86	
Loss sales	93	30	72	20	63	—	62	
Proportion of stores in each classification								
Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	
Less than 15	7	10	7	9	—	—	8	
15 - 19	5	8	5	15	15	15	7	
20 - 24	9	17	5	24	15	15	12	
25 - 29	16	14	7	9	15	15	15	
30 - 34	20	15	10	9	15	15	16	
35 - 39	16	12	11	5	5	5	13	
40 - 49	17	25	11	16	35	18	8	
50 or more	8	7	9	7	—	—	3	
Loss sales	2	5	4	2	6	—	3	

1/ The above data include only those stores which actually handled tangerines. Stores handling tangerines were in the following proportions to total stores of each type included in this survey: Fruit and vegetable stores, 65 percent; independent grocery stores, 33 percent; chain grocery stores, 42 percent; meat markets, 67 percent; pushcart operators, 24 percent; wagon or motor hucksters, 28 percent; and all retail outlets, 43 percent.

Table 26. Cranberries: Relation of gross retail margin to quantity sold weekly per retail outlet, <sup>1/</sup> New York City, November 1939

Range in average gross margin (Percent)	Weekly sales of cranberries per outlet, by type of store						Average 505 retail outlets	
	192 fruit and vegetable stores		85 independents		182 chain stores			
	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds		
Less than 15								
15 - 19	70	39	47	38	381	60		
20 - 24	23	22	47	21	30	30		
25 - 29	33	38	28	113	43	43		
30 - 34	38	70	50	60	37	37		
35 - 39	39	65	68	194	61	61		
40 - 49	49	76	56	50	57	57		
50 or more	40	3	36	92	64	23		
Loss sales	26	46	248	14	151			
	Proportion of stores in each classification							
Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	
Less than 15								
15 - 19	16	11	31	5	19			
20 - 24	13	9	17	5	13			
25 - 29	24	22	20	8	23			
30 - 34	20	19	13	18	18			
35 - 39	14	13	3	28	10			
40 - 49	5	12	3	10	10			
50 or more	3	9	3	18	6			
Loss sales	1	1	1	8	4			
				1	1			
	4	4	9	5	6			

<sup>1/</sup> The above data include only those stores which actually handled cranberries. The proportions of each type of store included in this survey which handled cranberries were as follows: Fruit and vegetable stores, 45 percent; independent grocery stores, 24 percent; chain stores, 66 percent; meat markets, 59 percent; pushcart operators, 1 percent; wagon or motor hucksters, 4 percent; and all retail outlets, 33 percent.

<sup>2/</sup> Includes 4 pushcart operators and 3 wagon or motor hucksters that handled cranberries.

## INCOME AREAS AND GROSS RETAIL MARGINS

It was by no means true that prices and gross margins were universally low in low-income areas and high in high-income areas. However, retail prices and margins per pound tended to be lowest in low-income areas.

### Margins on Eastern Apples

During November, as in August, the range in gross margins on eastern apples was about the same in all four income areas (table 27). In the lowest-income areas, 61 percent of the outlets took gross margins from 30 to 49 percent, and the largest sales per week seem to have been in such outlets. In the medium-low-income areas, 63 percent of the outlets realized margins ranging from 35 to 59 percent; in the medium-high-income neighborhoods, 67 percent; and in the highest-income areas, 63 percent of the outlets obtained margins within this range. On the other hand, 20 percent of the outlets in the highest-income areas obtained 24 percent or less gross margin in contrast with 14 percent of the outlets in the lowest-income areas. Largest weekly sales of eastern apples per outlet were reported in lowest-income areas by those outlets which took a gross margin of 30 to 34 percent (733 pounds); in medium-low-income areas by those which obtained a gross margin of 40 to 49 percent (900 pounds); and in medium-high and high-income areas by those obtaining a gross margin of 60 to 69 percent (table 27).

### Margins on Western Apples

Largest sales of western apples in low-income neighborhoods were in outlets where a gross margin of 40 to 49 percent was taken; in medium-low-income neighborhoods on a margin of less than 15 percent; in medium-high areas where a margin of 30 to 34 percent was realized; and in highest-income areas where a margin of 40 to 49 percent was charged.

In none of these areas did largest weekly sales of either eastern or western apples occur in outlets selling at a loss.

### Margins on Oranges

Largest sales of California oranges per outlet in lowest-income areas were reported by outlets that obtained gross margins of 20 to 24 percent; in medium-low-income areas by outlets with margins of less than 15 percent; in medium-high-income areas with margins of 40 to 49 percent; and in the highest-income areas with margins of 50 percent or more. Largest sales of Florida oranges were reported in high and medium-high income areas, where margins of less than 15 percent were taken; in the low income areas, where margins of 20 to 24 percent are taken, and in the medium-low-income areas, on loss-sale operations (table 28).

Table 27.- Apples: Relation of income area and variations in gross retail margin to quantity of apples sold weekly, as reported by New York City Retailers, November 1939

Range in gross margin	Eastern apples				Western apples			
	Proportion of outlets in income area	Quantity sold weekly per outlet	Average real-ized retail price per pound	Average gross margin per pound	Proportion of outlets in income areas	Quantity sold weekly per outlet	Average real-ized retail price per pound	Average gross margin per pound
Percent	Percent	Pounds	Cents	Cents	Percent	Pounds	Cents	Cents
<u>areas 1/</u>								
Low Income								
Less than 15	4	302	2.5	0.3	16	132	5.2	0.3
15 - 19	2	236	3.3	0.5	16	139	5.4	0.9
20 - 24	8	394	3.9	0.7	19	148	5.7	1.3
25 - 29	10	513	3.2	0.8	19	168	6.2	1.7
30 - 34	17	733	2.4	0.8	10	238	5.2	1.6
35 - 39	22	679	2.7	1.0	5	110	6.7	2.4
40 - 49	22	676	2.8	1.2	5	249	7.2	3.2
50 - 59	10	528	3.3	1.8	1	44	7.3	3.9
60 - 69	1	240	3.8	2.5	-	-	-	-
70 or more	2	353	5.2	3.7	-	-	-	-
Loss	2	118	2.6	-0.5	9	115	4.3	-0.3
<u>areas 1/</u>								
Medium-Low Income								
Less than 15	6	244	4.1	0.4	11	193	5.6	0.5
15 - 19	5	304	3.7	0.7	15	173	5.6	1.0
20 - 24	6	329	3.7	0.8	19	128	6.4	1.5
25 - 29	8	518	3.6	0.9	19	129	6.7	1.8
30 - 34	7	566	3.7	1.2	11	98	7.1	2.2
35 - 39	14	401	3.4	1.3	10	117	7.4	2.7
40 - 49	28	900	3.1	1.3	7	105	8.7	3.7
50 - 59	21	664	3.5	1.9	1	59	10.9	5.7
60 - 69	4	444	2.5	1.6	2	88	9.2	5.9
70 or more	2	48	12.3	9.2	2	44	23.6	17.9
Loss	1	190	2.7	-0.4	5	68	4.5	-0.6
<u>areas 1/</u>								
Medium-High Income								
Less than 15	5	435	3.8	0.4	14	134	5.6	0.6
15 - 19	4	438	3.4	0.6	7	135	6.6	1.0
20 - 24	7	416	3.6	0.8	18	87	6.7	1.5
25 - 29	5	466	3.7	1.0	20	95	6.8	1.9
30 - 34	6	594	3.7	1.2	19	139	7.3	2.4
35 - 39	12	632	3.9	1.5	10	117	7.8	3.0
40 - 49	33	565	4.2	1.9	8	111	8.6	3.7
50 - 59	22	721	4.3	2.3	1	73	10.7	5.6
60 - 69	3	1,124	4.4	2.8	-	-	-	-
70 or more	1	372	3.6	2.6	-	-	-	-
Loss	2	72	4.1	-0.2	3	55	5.3	-0.5
<u>areas 1/</u>								
High Income								
Less than 15	2	840	4.0	0.3	8	163	5.8	0.5
15 - 19	4	466	4.0	0.7	6	198	6.7	1.2
20 - 24	14	509	4.5	1.0	19	184	6.9	1.6
25 - 29	7	621	4.1	1.1	13	160	7.4	2.0
30 - 34	6	623	4.5	1.4	10	157	7.3	2.3
35 - 39	8	672	4.2	1.6	21	270	8.1	3.0
40 - 49	33	624	4.7	2.1	17	280	9.6	4.2
50 - 59	22	743	5.3	2.8	4	222	10.7	5.5
60 - 69	3	1,046	4.2	2.6	-	-	-	-
70 or more	-	-	-	-	-	-	-	-
Loss	1	492	3.2	-0.3	2	88	4.7	-0.7

1/ For explanation of income areas, see footnote 2 table 5, page 10.

2/ Less than 1 percent. - 41 -

Table 28.- Oranges: Relation of income area and variations in gross retail margins to quantity of oranges sold weekly, as reported by New York City Retailers, November 1939

Range in gross margin	California oranges				Florida oranges			
	Proportion of outlets sold in income area	Quantity sold weekly per outlet	Average realized retail price per pound	Average gross margin per pound	Proportion of outlets sold in income area	Quantity sold weekly per outlet	Average realized retail price per pound	Average gross margin per pound
Percent Areas 1/	Percent	Pounds	Cents	Cents	Percent	Pounds	Cents	Cents
Low-Income								
Less than 15	27	110	6.2	0.5	13	366	2.7	0.3
15 - 19	15	279	5.9	1.1	15	685	2.8	0.5
20 - 24	14	294	6.2	1.4	16	750	3.3	0.7
25 - 29	9	154	5.6	1.5	19	553	3.4	0.9
30 - 34	12	165	6.5	2.1	11	353	3.5	1.1
35 - 39	4	190	6.6	2.3	9	285	3.8	1.4
40 - 49	5	94	8.1	3.7	8	150	4.6	2.0
50 or more	1	140	6.9	3.7	5	157	5.1	2.8
Loss	13	90	5.4	-0.6	4	300	2.7	-0.3
Areas 1/								
Medium-Low Income								
Less than 15	13	355	5.4	0.5	7	644	2.9	0.2
15 - 19	14	244	7.1	1.3	10	1,021	2.7	0.5
20 - 24	19	244	6.4	1.4	13	399	3.4	0.7
25 - 29	12	299	6.5	1.8	19	389	3.6	1.0
30 - 34	11	169	7.3	2.4	15	333	3.7	1.1
35 - 39	9	254	6.7	2.5	15	414	3.8	1.4
40 - 49	9	292	5.9	2.5	11	375	4.4	1.9
50 or more	3	166	8.9	5.0	7	328	5.6	3.0
Loss	10	173	5.2	-0.6	3	1,353	2.3	-0.3
Areas 1/								
Medium-High Income								
Less than 15	21	335	5.9	0.6	6	805	3.1	0.3
15 - 19	14	277	6.2	1.1	8	245	3.5	0.6
20 - 24	17	302	7.1	1.6	14	407	3.5	0.8
25 - 29	13	379	7.3	2.0	21	387	3.7	1.0
30 - 34	13	241	6.7	2.1	16	373	3.9	1.3
35 - 39	6	348	7.3	2.7	11	252	3.8	1.4
40 - 49	8	418	6.9	3.2	18	269	4.3	1.9
50 or more	1	105	6.7	3.7	3	145	6.1	3.3
Loss	7	255	5.6	-0.5	3	222	3.4	-0.1
Areas 1/								
High Income								
Less than 15	11	374	6.9	0.7	4	855	3.0	0.3
15 - 19	11	235	7.7	1.4	6	820	3.3	0.6
20 - 24	11	402	8.2	1.8	11	764	3.5	0.8
25 - 29	15	373	8.7	2.4	27	786	3.8	1.1
30 - 34	17	559	6.9	2.2	12	404	4.1	1.3
35 - 39	14	654	7.8	2.9	15	627	4.4	1.6
40 - 49	13	587	7.9	3.5	20	572	4.7	2.0
50 or more	2	720	6.9	3.7	4	644	5.7	3.0
Loss	6	330	5.8	-0.6	1	240	3.7	-0.4

1/ For explanation of income areas, see footnote 2 table 5, page 10.

### Margins on Grapefruit

In the two highest-income areas, gross margins of from 40 to 49 percent were taken by outlets having the largest weekly sales, while in the lowest-income areas largest sales were attained by those outlets which took margins of 15 to 19 percent, and in medium-low-income areas by those taking less than 15 percent. The general tendency of margins to be higher as income increases is indicated by the fact that 80 percent of the outlets in the lowest-income areas charged less than 30 percent gross margin on grapefruit in contrast with 56 percent in the highest-income areas (table 29).

### Margins on Bananas

Loss sales of bananas were reported by a relatively large proportion of outlets in all income areas, ranging from 34 percent in lowest-income neighborhoods to 22 percent in the highest. However, largest weekly sales were reported by those outlets which obtained gross margins of 50 percent or more in both lowest-and-highest-income areas (table 29).

### Margins on Pears

In the lowest-income areas, largest sales occurred when a gross margin of less than 15 percent was realized (average price of 5.1 cents per pound); but in medium-low income areas, gross margins of 35 to 39 percent seem to have been associated with best results; in the medium-high-income areas, 50 percent or more; and in the highest-income areas, 40 to 49 percent (table 30).

Experience with eastern pears was somewhat similar. In all income areas, however, a greater proportion of outlets reported loss sales on eastern pears than on western pears (table 30).

### Margins on Western Grapes

In all but the highest-income areas, western grapes seem to have been handled by a large proportion of outlets on a relatively low margin; and in all income areas, loss sales were reported by a relatively large proportion of the outlets. The proportions of stores handling western grapes on less than 25 percent gross margin were as follows: lowest-income areas, 79 percent; medium-low income areas, 74 percent; medium-high income areas, 74 percent; highest-income areas, 53 percent. In no income area did the outlets selling at a loss have the largest sales of western grapes (table 31).

### Margins on Tangerines

Largest sales of tangerines were reported by those outlets which took a gross margin of 20 to 2 $\frac{1}{4}$  percent in the lowest-income areas; 30 to 34 percent in medium-low and medium-high income areas; and 35 to 39

Table 29.-Grapefruit and Bananas: Relation of income area and variations in gross retail margin to quantity of grapefruit and bananas sold weekly, as reported by New York City Retailers, November 1939

Range in gross margin	Grapefruit				Bananas			
	Proportion of outlets sold in income area	Quantity sold weekly per outlet	Average realized retail price per pound	Average gross margin per pound	Proportion of outlets sold in income area	Quantity sold weekly per outlet	Average realized retail price per pound	Average gross margin per pound
Percent Areas 1/	Percent	Pounds	Cents	Cents	Percent	Pounds	Cents	Cents
<b>Low-Income</b>								
Less than 15	22	221	3.2	0.4	12	134	3.6	0.3
15 - 19	19	320	3.3	0.5	7	131	4.5	0.7
20 - 24	17	235	3.4	0.8	5	127	3.6	0.7
25 - 29	13	171	3.4	0.9	9	167	2.8	0.8
30 - 34	10	257	3.7	1.2	7	324	3.1	1.0
35 - 39	5	77	4.5	1.7	7	1,331	2.5	0.9
40 - 49	3	205	4.7	2.0	13	460	3.6	1.6
50 or more	2	50	6.2	3.5	6	1,435	3.5	2.0
Loss	10	150	2.5	-0.3	34	212	2.8	-0.5
<b>Areas 1/</b>								
<b>Medium-Low Income</b>								
Less than 15	12	253	3.8	0.4	23	184	4.3	0.4
15 - 19	17	227	3.7	0.6	14	136	4.5	0.8
20 - 24	19	164	4.1	0.9	9	149	4.8	1.1
25 - 29	17	194	3.9	1.0	10	260	4.3	1.2
30 - 34	14	203	4.1	1.3	4	713	4.3	1.3
35 - 39	10	238	3.9	1.4	4	181	5.0	1.8
40 - 49	5	186	5.6	2.4	3	296	4.6	2.0
50 or more	3	116	6.1	3.4	1	165	4.0	2.5
Loss	3	89	3.6	-0.4	32	174	3.5	-0.6
<b>Areas 1/</b>								
<b>Medium-High Income</b>								
Less than 15	13	289	3.5	0.4	24	174	4.7	0.4
15 - 19	11	254	4.1	0.7	14	209	4.7	0.8
20 - 24	17	244	4.3	0.9	13	225	5.0	1.1
25 - 29	22	285	4.1	1.1	10	300	4.8	1.3
30 - 34	15	320	4.3	1.4	4	290	5.2	1.7
35 - 39	10	185	5.2	1.9	3	200	4.6	1.7
40 - 49	7	343	5.1	2.2	5	389	4.9	2.2
50 or more	3	256	5.7	3.2	1	82	4.7	2.4
Loss	3	192	3.8	-0.3	26	164	4.4	-0.7
<b>Areas 1/</b>								
<b>High Income</b>								
Less than 15	9	330	3.4	0.3	23	245	5.2	0.5
15 - 19	13	472	3.9	0.7	10	226	5.6	1.0
20 - 24	18	401	4.2	0.9	16	172	5.6	1.2
25 - 29	14	521	4.2	1.1	8	376	5.7	1.5
30 - 34	14	363	4.7	1.5	5	268	5.7	1.8
35 - 39	11	435	5.3	1.9	6	247	6.5	2.4
40 - 49	15	563	5.6	2.5	8	219	7.5	3.3
50 or more	4	419	7.3	3.9	2	467	7.2	4.2
Loss	2	497	5.4	-0.3	22	219	4.3	-0.4

1/ For explanation of income areas, see footnote 2 table 5, page 10.

Table 30.- Pears: Relation of income area and variations in gross retail margin to quantity of western pears and eastern pears sold weekly, as reported by New York City Retailers, November 1939

Range in gross margin	Western pears				Eastern pears			
	Proportion of outlets sold in income area	Quantity sold weekly per outlet	Average realized retail price per pound	Average gross margin per pound	Proportion of outlets sold in income area	Quantity sold weekly per outlet	Average retail price per pound	Average gross margin per pound
	Percent	Percent	Pounds	Cents	Percent	Pounds	Cents	Cents
Areas 1/								
Low Income								
Less than 15	21	199	5.1	0.6	9	150	4.0	0.5
15 - 19	13	161	5.7	1.0	9	88	3.8	0.7
20 - 24	15	187	5.3	1.1	26	425	3.3	0.7
25 - 29	12	174	5.9	1.6	-	-	-	-
30 - 34	13	154	6.2	2.0	4	250	3.3	1.0
35 - 39	8	109	6.1	2.2	9	75	3.2	1.2
40 - 49	9	105	6.9	3.0	4	50	4.2	1.8
50 or more	3	122	9.5	6.2	22	575	3.3	2.2
Loss	6	67	4.7	-0.6	17	294	3.1	-0.3
Areas 1/								
Medium-Low Income								
Less than 15	11	130	6.0	0.7	6	38	3.2	0.3
15 - 19	19	170	6.1	1.0	6	75	3.5	0.6
20 - 24	15	150	6.3	1.4	6	156	4.3	1.0
25 - 29	18	142	7.0	1.9	4	50	2.2	0.6
30 - 34	11	194	7.4	2.4	16	65	3.1	1.0
35 - 39	12	216	7.0	2.5	16	114	4.3	1.7
40 - 49	9	127	8.7	3.9	20	77	3.8	1.6
50 or more	2	67	8.9	4.9	20	61	4.8	2.9
Loss	3	40	4.8	-1.0	6	56	3.0	10.0
Areas 1/								
Medium-High Income								
Less than 15	9	96	6.6	0.7	-	-	-	-
15 - 19	10	118	6.6	1.2	6	100	3.8	0.6
20 - 24	15	140	6.9	1.6	6	50	3.0	0.6
25 - 29	23	122	7.1	1.9	22	111	3.5	0.9
30 - 34	18	148	7.3	2.3	16	65	4.1	1.3
35 - 39	10	159	8.1	3.0	13	100	4.0	1.5
40 - 49	9	118	8.5	3.7	9	67	4.0	1.7
50 or more	2	213	7.8	4.5	22	45	4.7	2.5
Loss	4	49	4.7	-1.0	6	50	2.7	-0.2
Areas 1/								
High Income								
Less than 15	7	126	6.1	0.6	-	-	-	-
15 - 19	9	151	6.6	1.1	-	-	-	-
20 - 24	15	121	7.2	1.6	3	31	2.9	0.6
25 - 29	17	136	7.3	2.0	16	66	4.2	1.2
30 - 34	13	127	7.8	2.5	10	125	5.0	1.6
35 - 39	11	180	7.4	2.7	23	75	5.5	2.1
40 - 49	15	246	8.4	3.7	26	92	5.0	2.2
50 or more	4	197	11.3	6.2	19	46	7.0	4.2
Loss	1	176	5.3	-0.0	3	31	4.5	10.0

1/ For explanation of income areas, see footnote table 5, page 10.

Table 31.— Western grapes and tangerines: Relation of income area and variations in gross retail margin to quantity of western grapes and tangerines sold weekly, as reported by New York City Retailers, November 1939

Range in gross margin	Western grapes				Tangerines			
	Proportion of outlets in income area	Quantity sold weekly per outlet	Average realized retail price per pound	Average gross margin per pound	Proportion of outlets in income area	Quantity sold weekly per outlet	Average realized retail price per pound	Average gross margin per pound
Percent	Percent	Pounds	Cents	Cents	Percent	Pounds	Cents	Cents
<i>Areas 1/</i>								
Low Income								
Less than 15	31	219	5.9	0.5	11	159	4.1	0.4
15 - 19	22	140	6.9	1.2	13	152	4.6	0.7
20 - 24	13	221	6.2	1.4	19	232	4.5	1.0
25 - 29	9	365	5.3	1.8	16	116	5.4	1.5
30 - 34	8	165	7.4	2.3	12	136	4.9	1.6
35 - 39	3	196	7.6	2.8	7	162	4.6	1.7
40 - 49	1	280	9.1	3.7	13	112	4.9	2.1
50 or more	-	-	-	-	3	142	3.5	1.8
Loss	13	130	5.2	-0.4	6	41	4.5	-0.6
<i>Areas 1/</i>								
Medium-Low Income								
Less than 15	29	179	6.1	0.6	11	68	5.1	0.5
15 - 19	13	1,000	4.6	0.7	5	128	5.8	0.9
20 - 24	23	196	6.9	1.5	5	56	5.4	1.2
25 - 29	8	366	6.2	1.7	15	74	6.0	1.6
30 - 34	7	120	8.0	2.5	14	177	5.8	1.9
35 - 39	6	157	6.8	2.6	17	69	7.0	2.6
40 - 49	5	152	9.7	4.2	19	92	6.4	2.8
50 or more	-	-	-	-	11	75	8.5	4.8
Loss	10	199	5.4	-0.2	3	67	4.3	-0.8
<i>Areas 1/</i>								
Medium-High Income								
Less than 15	35	170	6.4	0.6	7	62	6.1	0.7
15 - 19	10	124	7.3	1.1	7	133	6.0	1.0
20 - 24	18	120	7.3	1.8	14	82	6.2	1.3
25 - 29	13	181	8.6	2.1	20	105	6.4	1.7
30 - 34	7	183	7.8	2.5	20	138	7.1	2.2
35 - 39	3	84	9.6	3.6	10	100	7.5	2.8
40 - 49	2	42	8.6	3.7	17	110	8.0	3.5
50 or more	1	10	10.5	5.3	4	47	9.7	6.1
Loss	11	113	5.9	-0.3	1	80	3.6	-0.2
<i>Areas 1/</i>								
High Income								
Less than 15	20	142	7.1	0.7	5	98	7.6	0.8
15 - 19	14	156	8.3	1.4	3	52	6.2	1.1
20 - 24	11	129	8.4	1.9	10	63	6.2	1.3
25 - 29	8	133	8.8	2.5	11	101	6.2	1.6
30 - 34	12	136	10.8	3.3	16	113	6.6	2.1
35 - 39	11	182	11.8	4.4	18	121	6.9	2.5
40 - 49	14	201	11.4	4.3	23	93	8.4	3.7
50 or more	2	383	21.4	11.4	11	91	10.8	6.1
Loss	8	192	5.6	-0.7	3	81	5.1	-0.7

1/ For explanation of income areas, see footnote 2 table 5, page 10.

percent in highest income areas.<sup>1</sup> In no income areas were maximum sales per outlet associated with loss sales (table 31).

#### Margins on Cranberries

In all income areas, the largest weekly volume of cranberry sales per outlet was reported by the stores which sold this commodity at a loss. The realized retail price which resulted in such loss sales averaged between 12 and 12-1/2 cents per pound. Similarly, in all income areas, a relatively large proportion of these outlets sold cranberries on gross margins of less than 25 percent; i.e., lowest-income areas, 85 percent; medium-low income areas, 69 percent; medium-high-income areas, 69 percent; and highest-income areas, 51 percent (table 32).

#### INTERPRETATION OF DATA ON GROSS MARGINS

It was pointed out in Miscellaneous Report No. 25, covering the August (1939) survey, and bears repeating here, that the interpretation of these or any other data dealing with gross margins on fruit should be made with great care. Even though it may seem to be suggested by the data in some instances, they do not indicate that the way to increase fruit consumption is to raise prices and margins. Neither do the data bear out the theory advanced by many that the way to sell more fruit is to have retailers reduce prices to consumers and sell at a very small margin unless their costs of operation are such that low margins are profitable.

These data do emphasize the need for a critical but unbiased analysis, on the part of growers, cooperatives, and the produce trade in general, of the position and point of view of retailers in the merchandising of fruits. The retailer is in business to make the best living he can. It is probably a matter of indifference to him whether he sells coffee, clothespins, or fruit, provided he gets a margin of "profit" on whatever he does sell that will enable him to stay in business. Naturally, he tends to favor those items which sell most readily and on which he can maintain a substantial volume of business at a good margin of profit. A retailer can hardly be expected to handle enthusiastically a fruit on which there is little or no margin of profit, especially when other commodities offer more attractive returns.

If the foregoing analysis is correct, the conclusion seems to follow that it will pay growers, shippers, cooperatives and the fruit industry in general to concentrate on developing ways and means of helping retailers sell fruits more efficiently. It should not be overlooked that many storekeepers have an instinctive dislike for handling perishable products, and often lack the knowledge necessary for success at this job.

Table 32.- Cranberries: Relation of income area and variations in gross retail margin to quantity of cranberries sold weekly, as reported by New York City Retailers, November 1939

Range in gross margin	Cranberries			
	Proportion of outlets in income area	Quantity sold weekly per outlet	Average realized retail price per pound	Average gross margin per pound
Percent	Percent	Pounds	Cents	Cents
Low Income areas 1/				
Less than 15	22	33	14.8	1.1
15 - 19	27	20	14.8	2.6
20 - 24	31	29	15.0	3.2
25 - 29	5	25	15.2	4.0
30 - 34	5	25	15.2	5.2
35 - 39	-	-	-	-
40 - 49	-	-	-	-
50 or more	5	50	15.0	8.6
Loss	5	288	12.0	-1.4
Medium-Low Income areas 1/				
Less than 15	31	96	14.8	1.5
15 - 19	14	28	15.4	2.6
20 - 24	18	79	15.6	3.6
25 - 29	18	47	17.0	4.7
30 - 34	8	36	16.8	5.4
35 - 39	1	50	13.0	7.0
40 - 49	2	8	16.9	6.9
50 or more	2	20	14.1	7.2
Loss	6	180	12.1	-1.3
Medium-High Income areas 1/				
Less than 15	21	40	15.0	1.5
15 - 19	12	26	15.5	2.6
20 - 24	27	34	15.4	3.3
25 - 29	18	36	16.3	4.5
30 - 34	10	49	16.0	5.2
35 - 39	1	34	19.2	6.7
40 - 49	1	12	16.7	7.5
50 or more	1	3	18.7	10.0
Loss	9	90	12.5	-0.9
High Income areas 1/				
Less than 15	14	51	14.4	1.1
15 - 19	12	36	15.3	2.6
20 - 24	21	41	16.0	3.5
25 - 29	19	33	16.9	4.5
30 - 34	10	75	16.7	5.4
35 - 39	12	59	18.2	6.7
40 - 49	8	72	19.1	8.4
50 or more	-	-	-	-
Loss	4	197	12.4	-1.1

1/ For explanation of income areas, see footnote 2 table 5, page 10.

## SPOILAGE AND FRUIT SALES

The perishable nature of most fruits and vegetables makes the retailing of such produce more exacting and hazardous than the retailing of groceries or other staple and relatively nonperishable commodities. Consequently, the relative extent of spoilage or waste which a retailer normally incurs in handling a given fruit affects the merchandising as well as the profits. As might be expected, the spoilage incurred on a given quantity of fruit differed according to the kind of fruits and the retail outlet.

### Spoilage on Apples

The average spoilage on eastern apples during November, as reported by these retailers, was 3.3 pounds per 100 pounds. Wagon or motor hucksters, however, reported spoilage of only 2.4 pounds per 100 pounds, while pushcart operators had spoilage of almost 4 pounds in each 100. In the case of western apples, spoilage averaged 3.1 pounds per 100 pounds, but chain grocers reported only 2.6 pounds whereas both pushcart operators and wagon or motor hucksters reported 3.6 pounds per 100 (table 33).

### Spoilage on Oranges

The largest average spoilage of California oranges was reported by fruit and vegetable stores (4.2 pounds per 100), and the lowest by pushcart operators (3 pounds per 100). Spoilage reported by the remaining four types of outlets was quite uniform (from 3.3 to 3.7 pounds per 100).

On Florida oranges, no type of outlet reported an average spoilage of more than 3.9 pounds per 100. Wagon or motor hucksters had average spoilage of only 1.8 pounds per 100. Spoilage was highest in meat markets (3.9 pounds) and second highest in chain grocery stores (3.7 pounds per 100).

### Spoilage on Other Fruits

Spoilage on grapefruit ranged from 1.6 pounds reported by wagon or motor hucksters to 3.6 pounds by chain grocery stores, and averaged 3 pounds per 100 pounds for all outlets.

On bananas, spoilage averaged 6.4 pounds per 100, and ranged from 7.3 pounds by chain grocery stores to 2 pounds per 100 by hucksters.

Spoilage on eastern pears averaged 4.1 pounds per 100, and ranged from about 4.7 pounds by fruit and vegetable stores to less than 1 pound by wagon or motor hucksters.

Table 33. — Relative loss from spoilage per 100 pounds purchased on selected fruits, as reported by retail outlets of various types, New York City, November 1939.

Fruit	Fruit and vegetable stores Pounds	Spoilage per 100 pounds purchased by —						Average, all retail outlets Pounds	
		Grocery stores		Meat markets		Pushcart operators			
		Independents Pounds	Chain stores Pounds	Pounds	Pounds	Pounds	Pounds		
<u>Apples:</u>									
Eastern	3.6	2.8	2.6	3.1	3.9	2.4	3.3		
Western	3.5	2.7	2.6	2.8	3.6	3.6	3.1		
<u>Oranges:</u>									
California	4.2	3.4	3.3	3.7	3.0	3.3	3.7		
Florida	2.5	2.9	3.7	3.9	2.6	1.8	3.0		
Grapefruit	2.5	2.6	3.6	3.1	3.1	1.6	3.0		
Bananas	6.9	6.8	7.3	5.8	4.8	2.0	6.4		
<u>Pears:</u>									
Eastern	4.7	3.9	3.3	4.1	3.9	0.8	4.1		
Western	3.8	3.6	3.5	4.0	3.3	2.0	3.6		
<u>Grapes:</u>									
Eastern	3.1	0.8	3.3	—	9.0	—	2.5		
Western	10.1	10.5	7.6	11.1	7.1	1.2	8.2		
Tangerines	3.8	3.8	4.3	3.4	3.3	2.8	3.7		
Cranberries	0.1	1/	—	—	—	—	1/		
Honeydew melons	14.5	10.5	14.7	25.9	—	—	14.3		
Other melons	12.5	14.2	9.0	—	—	—	11.0		

1/ Less than 0.1 pound.

On western pears, spoilage averaged slightly less (3.6 pounds per 100) than on eastern pears (4.1 pounds per 100) and ranged from 2 pounds by hucksters to 4 pounds in meat markets.

Relatively heavy losses from spoilage were incurred on western grapes. Average spoilage was 8.2 pounds per 100, and ranged from 11.1 pounds in meat markets to 1.2 pounds by wagon or motor hucksters.

Average spoilage on tangerines was 3.7 pounds per 100, and ranged from 2.8 pounds by wagon or motor hucksters to 4.3 pounds in chain grocery stores.

Not all types of outlets handled honeydew melons, but heavy spoilage seems to have been incurred by all types of outlets that did handle them. Spoilage ranged from 10.5 pounds per 100 pounds in independent grocery stores to 25.9 pounds in meat markets.

Spoilage in handling cranberries seems to have been negligible for all types of outlets. The average loss was less than 0.1 pound per 100 pounds.

#### SPOILAGE, PRICES AND MARGINS RELATED TO VOLUME HANDLED

##### Apples

One of the factors which seemed to affect spoilage in November as well as in August was the quantity of each fruit handled. In the case of eastern apples, loss from spoilage averaged 5.1 pounds per 100 where less than 50 pounds were handled weekly, in comparison with 3.1 pounds per 100 where 2,000 pounds or more per week were handled (a decrease in spoilage of about 40 percent) (table 34). Spoilage of western apples was 3.4 pounds per 100 when less than 50 pounds per week were handled, 2.1 pounds per 100 when 300 to 400 pounds were handled weekly, but was considerably larger in the largest-volume group of outlets.

In the case of eastern apples, actual realized retail prices per pound were lower in large volume outlets, but the percentage of gross margin was higher. The actual realized retail price of western apples differed hardly at all, whether the weekly volume per store was 50 or 400 pounds of apples. It should be noted that only 6 percent of all outlets handled 2,000 or more pounds of eastern apples per week, and only 4 percent of all outlets handled 600 or more pounds of western apples per week.

##### Oranges

Spoilage on California oranges averaged 4.7 pounds per 100 in outlets handling less than 50 pounds per week, and 3.6 pounds per 100 when volume was 1,000 or more pounds per week (a decrease of about

Table 34 - Relation of Physical volume of apples sold per retail outlet, to spoilage, prices and margins, as reported by New York City retailers, November 1939

Weekly sales per outlet (pounds)	Spoilage per 100 pounds purchased	Index	Average realized retail price per pound	Cents	Gross retail margin		
					Selling price per pound	Cents	Percent
					Gross retail margin Selling price per pound	Cents	Percent
<u>Eastern apples:</u>							
Less than 50	5.1	100					
50	4.8	94	4.2	1.7	40	9	9
100	4.1	80	4.5	1.7	38	14	14
200	3.9	76	4.2	1.6	38	15	15
300	3.7	73	4.4	1.7	40		
400	3.7	73	4.4	1.8	41	9	9
600	3.1	61	4.2	1.7	40	14	14
1,000	3.0	59	4.1	1.7	41	14	14
2,000 or more	3.1	61	3.7	1.5	41	10	10
				3.1	45	6	6
<u>Western apples:</u>							
Less than 50	3.4	100					
50	3.3	97	7.2	2.0	28	40	40
100	3.2	94	7.1	1.9	27	18	18
200	2.5	74	7.1	2.0	28	18	18
300	2.1	62	7.7	2.1	30	9	9
400	2.6	76	7.1	2.5	32	6	6
600 or more <sup>2/</sup>	4.0	118	6.7	2.2	31	5	5
					2.1	4	4
					31		

1/ 1,341 outlets reported handling eastern apples and 934 handling western apples.

2/ If sales by two outlets having spoilage of 26.8 percent and 12 percent were eliminated, the last line would appear as follows: 3.4 pounds spoilage, 100 index of spoilage, 6.8 cents realized retail selling price, 2.1 cents retail margin, 32 percent retail margin.

23 percent in spoilage) (table 35). Similarly, spoilage on Florida oranges decreased from 4.8 pounds to 3.1 pounds per 100 (or about 35 percent). The actual margin on California oranges in cents per pound, as well as in percentage of gross retail price, was highest where the largest volume of oranges was handled. The reverse was true of Florida oranges.

#### Grapefruit

The apparent effect of volume handled on spoilage of grapefruit is somewhat inconsistent, but in general, spoilage seems to have declined as quantity handled weekly increased. The outlets handling less than 50 pounds weekly per store reported spoilage of 3.3 pounds per 100, and those handling 1,000 pounds or more per week, 2.7 pounds (a difference of about 13 percent) (table 36). However, the 10 percent of these retailers, that handled from 500 to 1,000 pounds per week, had an average spoilage of 3.5 pounds per 100, the highest of any group reporting.

#### Tangerines

Almost half of the 651 retail outlets that handled tangerines sold less than 50 pounds per store per week, and the spoilage averaged 5.1 pounds per 100. Eight percent of the outlets sold 300 pounds or more per week, and spoilage averaged 3.4 pounds per 100 pounds (or about 33 percent less). Realized retail prices and gross margins were also slightly less when relatively large quantities were handled weekly (table 36).

#### Bananas

Only 6 percent of the 975 outlets, which handled bananas during November, sold less than 50 pounds per week, and the spoilage in those stores averaged 9.2 pounds per 100 pounds. Ten percent of the stores handled 500 or more pounds per week, and average spoilage amounted to about 5.2 pounds per 100 (a decrease of 43 percent) (table 37). The gross margin (whether calculated on a percentage basis or in actual cents per pound) rose more or less regularly as the quantities handled per week increased.

#### Western Grapes

As previously indicated, loss from spoilage seems to have been especially heavy on western grapes. Out of 963 stores, which handled western grapes, 76 percent reported spoilage of more than 10 pounds per 100 (table 37). Almost one-third of these outlets, which handled from 50 to 99 pounds of western grapes weekly per store, reported spoilage of 10 1/2 pounds per 100; but in 7 percent of the stores handling 500 or more pounds weekly the average spoilage was only 5.7 pounds per 100 pounds. The largest gross margin (both in cents per pound and on a percentage basis) was taken by the outlets handling from

Table 35. - Relation of physical volume of oranges sold weekly per retail outlet, to spoilage, prices and margins, as reported by New York City retailers, November 1939

Weekly sales per outlet (Founds)	Spoilage per 100 pounds purchased (Founds)	Index	Average realized retail selling price per pound	Gross retail margin		Percent of outlets handling 1/ <sup>1</sup>
				Cents	Cents	
<u>California Oranges:</u>						
Less than 50	4.7	100	7.5	1.5	20	11
50 - 99	4.1	87	7.3	1.5	21	21
100 - 199	4.3	91	7.6	1.8	24	19
200 - 299	3.7	79	7.1	1.7	24	18
300 - 499	3.6	77	7.1	1.8	25	14
500 - 999	3.4	72	7.0	1.8	26	10
1,000 or more	3.6	77	6.6	2.0	30	7
<u>Florida Oranges:</u>						
Less than 50	4.5	100	4.5	1.4	31	8
50 - 99	2.9	60	4.2	1.3	31	18
100 - 199	3.1	65	4.2	1.3	31	18
200 - 299	3.4	71	4.1	1.3	32	12
300 - 499	2.9	60	3.9	1.2	31	16
500 - 999	2.9	60	3.7	1.1	30	17
1,000 or more	3.1	65	3.4	0.9	26	11

1/ California oranges were handled by 1,074 retail outlets; Florida oranges by 1,171 retail outlets.

Table 36. Relation of Physical volume of grapefruit and tangerines sold weekly per retail outlet, to spoilage, prices and margins, as reported by New York City retailers, November 1939

Weekly sales per outlet (Pounds)	Spoilage per 100 pounds purchased Index	Average realized retail selling price per cents	Gross Retail margin Selling price Per pound cents	Percentage of realized re- tail price Percent		Percentage of outlets handling 1/ Percent
				Percent	Percent	
<u>Grapefruit:</u>						
Less than 50	3.3	100	4.4	1.1	25	15
50 - 99	3.1	94	4.4	1.1	25	22
100 - 199	3.0	91	4.6	1.2	26	18
200 - 299	2.7	82	4.5	1.2	27	12
300 - 499	2.6	79	4.4	1.3	29	18
500 - 999	3.5	100	4.2	1.2	29	10
1000 or more	2.7	82	4.2	1.2	29	5
<u>Tangerines:</u>						
Less than 50	5.1	100	6.8	2.3	34	46
50 - 99	3.7	73	7.0	2.3	33	24
100 - 199	3.3	65	6.8	2.3	34	14
200 - 299	3.5	69	6.1	1.8	30	8
300 or more	3.4	67	5.6	1.8	32	8

1/ Grapefruit was handled by 1,147 retail outlets; and tangerines by 651 retail outlets.

Table 37. Relation of physical volume of bananas and western grapes sold weekly per retail outlet, to spoilage, prices and margins, as reported by New York City retailers, November 1939

Weekly sales per outlet (pounds)	Spoilage per 100 pounds purchased	Average realized retail selling price per pound	Gross retail margin		Percentage of outlets handling $\frac{1}{2}$ Percent
			Selling price per pound	Percentage of realized retail price	
<u>Bananas:</u>					
Less than 50	9.2	100	5.1	0.7	6
50 - 99	8.6	93	4.5	0.5	25
100 - 149	7.8	85	4.8	0.6	20
150 - 199	8.2	89	4.9	0.6	15
200 - 299	6.5	71	5.1	0.9	12
300 - 499	6.6	72	4.8	0.8	12
500 or more	5.2	57	4.1	1.1	10
<u>Western grapes:</u>					
Less than 50	10.1	100	7.9	1.4	18
50 - 99	10.5	104	8.0	1.6	20
100 - 199	10.2	101	7.8	1.6	26
200 - 299	9.6	95	8.2	1.9	11
300 - 499	6.9	88	7.9	2.1	6
500 or more	5.7	56	5.9	1.2	7

$\frac{1}{2}$ / Bananas were handled by 975 retail outlets and western grapes by 963 retail outlets.

300 to 499 pounds per week.

#### Western Pears

Almost two-fifths of the 975 retail outlets, which handled western pears, sold less than 50 pounds weekly per store, with an average loss from spoilage of 5.3 pounds per 100 pounds. On the other hand, 7 percent of these outlets, handling from 300 to 499 pounds per store per week, had spoilage losses of only 2.3 pounds per 100 (table 38). Percentage gross retail margins were highest in those stores where least spoilage was reported.

The foregoing data seem to indicate, for the most part, distinctly lower spoilage losses by outlets handling relatively large volumes of a given fruit. It is probably easier to avoid spoilage when a fast turnover, usually incident to large volume, is experienced. In contrast, it is probably impossible to avoid somewhat larger spoilage losses when small volumes are handled with a slow turnover.

#### AMOUNT OF DISPLAY SPACE RELATED TO SALES

In the same manner as in August, efforts were made to compare the amount of display space devoted to certain leading fruits and to observe the relation of the amount of display space to the sales per retail outlet of these fruits. It should again be emphasized that the following data do not answer the question whether a large display of apples sells a large volume of apples or a retailer has a large display merely because he has learned he can sell a large volume of apples and must put them somewhere.

In chain grocery stores, apple sales were 11 $\frac{1}{4}$  pounds per week where the display space amounted to 3 square feet or less and 2,653 pounds per week where the display covered 50 square feet or more (table 39). Results in independent grocery stores and in independent fruit and vegetable stores were somewhat similar to those in chain grocery stores. In meat markets, and other types of outlets, the relationship was less regular but followed the same general pattern.

In chain grocery stores, sales of oranges averaged 279 pounds per week where display space of 3 square feet or less was used, and 3,541 pounds where display space covered 50 square feet or more (table 40). Results in independent grocery stores, pushcarts and other types of outlets followed about the same pattern.

Just as in August, a comparatively large number of all types of outlets used a small space for displaying apples and oranges. Sixty-one percent of the independent grocery stores, 60 percent of the wagon hucksters and 56 percent of the pushcart operators used less than 6 square feet of display space for oranges. On the contrary, 26 percent of the meat markets and 22 percent of the fruit and vegetable stores had displays covering 40 or more square feet.

Table 38. Relation of physical volume of pears sold weekly per retail outlet, to spoilage, prices and margins, as reported by New York City retailers, November 1939

Weekly sales per outlet (pounds)	Spoilage 100 pounds purchased	Index	Average realized retail selling price per pound	Gross retail margin		Percentage of outlets handling 1/ Percent
				Selling price per pound	Percentage of realized re- tail price	
<u>Western pears:</u>						
Less than 50	5.3	100	7.2	1.9	26	39
50 - 99	3.9	74	6.9	1.8	26	20
100 - 199	3.2	60	7.3	2.1	29	20
200 - 299	3.8	72	6.9	2.1	30	10
300 - 499	2.8	53	7.1	2.2	31	7
500 or more	3.5	66	6.2	1.8	29	4
<u>Eastern pears:</u>						
Less than 50	5.8	100	4.8	1.8	38	24
50 - 99	5.2	90	4.7	1.9	40	39
100 or more	3.7	64	3.8	1.4	37	37

1/ Western pears were handled by 975 retail outlets and eastern pears by 148 retail outlets.

Table 39. - Relation of display space devoted to apples to quantity of apples handled by each type of retail outlet <sup>1/</sup>, New York City, November 1939

Display space used for apples (square feet)	Quantity of apples handled weekly by each type of retail outlet						Average 1,445 retail outlets Pounds	
	Grocery stores		meat markets		wagon or motor hucksters			
	independents	chain stores	operators	operators	motor hucksters			
Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	
3 or less	293	76	114	122	487	401	238	
4 - 6	554	188	347	178	626	586	408	
7 - 9	515	329	415	255	744	772	496	
10 - 14	653	434	576	631	1,354	1,232	701	
15 - 19	789	605	898	1,667	1,047	1,198	904	
20 - 29	605	815	1,006	705	1,173	912	771	
30 - 39	850	1,517	1,412	956	3,968	2,160	1,378	
40 - 49	619	1,590	1,786	1,529	1,800	9,120	1,257	
50 or more	1,424	1,993	2,658	2,238	-	-	1,806	

Percentage of stores handling apples in such classification

Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
3 or less	4	38	9	5	34	20	20
4 - 6	9	23	27	18	30	24	21
7 - 9	11	12	18	11	14	16	13
10 - 14	22	8	16	18	6	13	14
15 - 19	13	6	10	12	7	18	10
20 - 29	15	5	10	6	3	4	8
30 - 39	9	3	5	6	3	4	5
40 - 49	8	2	2	1	1	1	4
50 or more	9	3	3	18	-	-	5

<sup>1/</sup> The above data include only those stores which actually handled apples. Stores handling apples were in the following proportions to total stores of each type included in this survey: Fruit and vegetable stores, 100 percent; independent grocery stores, 98 percent; chain grocery stores, 98 percent; meat markets, 100 percent; pushcart operators, 81 percent; and wagon or motor hucksters, 100 percent; all stores, 95 percent.

Table 40.—Relation of display space devoted to oranges to quantity of oranges handled by each type of retail outlet <sup>1/</sup>, New York City, November 1939

Display space used for oranges (square feet)	Quantity of oranges handled weekly by each type of retail outlet						Average 1,352 retail outlets Pounds	
	419 fruit and vegetable stores		Grocery stores		meat markets			
	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds		
3 or less	182	97	279	88	378	204	178	
4 - 6	299	219	468	212	438	616	353	
7 - 9	367	420	574	292	764	525	500	
10 - 14	762	597	856	1,478	1,081	776	841	
15 - 19	533	512	1,239	653	1,446	918	860	
20 - 29	503	605	1,506	580	2,149	930	949	
30 - 39	799	1,388	2,116	981	4,685	891	1,222	
40 - 49	727	1,345	3,819	1,242	6,750	-	1,319	
50 or more	1,190	1,981	3,541	2,071	-	-	1,709	

Percent	Percentage of retail outlets handling oranges in each classification						Percent	
	Percent		Percent		Percent			
	Percent	Percent	Percent	Percent	Percent	Percent		
3 or less	5	32	9	10	20	20	16	
4 - 6	16	29	21	14	36	40	24	
7 - 9	10	11	17	10	13	20	12	
10 - 14	15	9	19	12	16	8	14	
15 - 19	8	5	12	10	6	7	8	
20 - 29	14	3	11	6	7	3	9	
30 - 39	10	4	5	12	1	2	6	
40 - 49	9	2	2	12	1	-	4	
50 or more	13	5	4	14	-	-	7	

<sup>1/</sup> The above data include only those stores which actually handled oranges. Stores handling oranges were in the following proportions to total stores of each type included in this survey: Fruit and vegetable stores, 99 percent; independent grocery stores, 98 percent; chain grocery stores, 99.6 percent; meat markets, 100 percent; pushcart operators, 56 percent; wagon or motor hucksters, 85 percent; all stores, 89 percent.

Apple displays of 64 percent of the pushcart operators, 61 percent of the independent grocers, 44 percent of the hucksters and 36 percent of the chain grocery stores covered 6 square feet or less. However, 24 percent of the meat markets and 17 percent of the fruit and vegetable stands had apple displays covering 40 square feet or more.

#### ATTRACTIVENESS OF DISPLAY RELATED TO SALES

A further check on display and sales was made during November by requiring enumerators to give each retail outlet a personal rating of "excellent", "good" or "poor", with respect to the attractiveness of the entire display of fruits and vegetables. Such ratings were, of course, strictly the personal appraisal of the enumerator. In all types of outlets except the wagon or motor hucksters, the results were striking. Taking all outlets without regard to type, gross sales of fruits and vegetables averaged \$358 per week in the stores rated "excellent", \$157 in stores rated "good" and only \$58 in stores rated "poor" (table 41). In the stores rated "excellent" the average quantity of selected fruits sold per week was 3,669 pounds per store, in contrast with 1,774 pounds in stores rated "good" and 939 pounds in stores rated "poor". Chain grocery stores had a larger proportion of the total rated "excellent" (28 percent) than any other type of outlet. Meat markets ranked second (with 21 percent) but average sales of selected fruits in the "excellent" meat markets were greater by 1,800 pounds per store per week than in "excellent" chain grocery stores. Only 15 percent of the independent fruit and vegetable stores were rated "excellent", but sales of selected fruits per store were second only to "excellent" meat markets. None of the wagon hucksters, only 2 percent of the pushcarts, and only 8 percent of the independent grocery stores were rated "excellent".

These data seem to support the commonly accepted theory that "the eye buys" and that an attractive display is likely to help sell fruits and vegetables. The kind of display which any particular store can use advantageously must, of course, be determined by the particular circumstances surrounding the store. This display information seems to show that the outward appearance of fruit stores would be a reliable guide to sales promotion men who attempt to estimate the sales volumes of retail outlets.

#### VARIETIES OF APPLES HANDLED

At least 33 named varieties of eastern apples and 11 named varieties of western apples were handled by these 1,516 retailers in addition to unknown varieties sold as such or under designations such as "cooking apples".

Table 41. Relation of enumerator's appraisal of display of fruits and vegetables in retail outlets, by type of store, to quantity and dollar sales of fruits and vegetables, and quantity of selected fruits sold weekly, New York City, November 1939

Type of outlet	Enumerator's rating of display 1/	Outlets in group		Average weekly sales	
		Total Number	Percentage of total	All fruits and vegetables Dollars	Selected fruits 2/ Pounds
Fruit and vegetable stores	Excellent	65	15	491	4,055
	Good	331	79	213	1,851
	Poor	26	6	113	1,428
Grocery stores:					
Independent	Excellent	30	6	269	2,851
	Good	254	71	127	1,267
	Poor	77	21	30	345
Chain stores	Excellent	76	28	288	3,438
	Good	195	70	203	2,238
	Poor	6	2	42	638
Meat markets	Excellent	14	21	38 <sup>4</sup>	5,238
	Good	50	76	267	2,485
	Poor	2	3	18	205
Pushcart operators	Excellent	5	2	172	2,666
	Good	298	93	30	1,700
	Poor	15	5	38	1,010
Wagon or motor hucksters	Excellent	-	-	-	-
	Good	56	79	114	1,675
	Poor	15	21	138	3,287
All types of stores	Excellent	190	13	358	3,669
	Good	1,184	78	157	1,774
	Poor	141	9	58	939

1/ Enumerators were instructed to rate each outlet excellent, good, or poor according to personal appraisal of display.

2/ Includes apples (eastern and western), oranges (California and Florida), grapefruit, bananas, pears (eastern and western), grapes (eastern and western), tangerines, cranberries, honeydew melons, and other melons.

Out of a total of 952,664 pounds of apples sold weekly during November, eastern apples made up slightly more than 84 percent and western apples slightly less than 16 percent.

The variety of apples sold in largest volume was the McIntosh. One-third of the entire quantity of apples sold was of this variety (table 42). Practically all these McIntosh apples were of eastern origin. Western apples of the Delicious variety were third in rank (about 12 percent of the total apple sales) but if the tonnage of both eastern and western apples of the Delicious variety were added together, this variety would rank second with 18 percent of the total. Eastern apples of the Greening variety then ranked third, with slightly more than 14 percent, followed by eastern apples of the Cortland variety (about 7 percent); and of the Baldwin variety (about 6 percent). Eastern apples of the Rome Beauty variety made up 3 percent and western Rome Beauty apples 1.8 percent, thus accounting for almost 5 percent of the total. These 6 varieties (McIntosh, Delicious, Greening, Cortland, Baldwin, and Rome Beauty) amounted to 82 percent of the total weekly apple sales.

Lady apples, used largely for decorative purposes, brought the highest realized retail price per pound reported for any apple but was handled in very small quantities. Of the other varieties, western apples of the Golden Delicious variety averaged 9.8 cents per pound but the most popular western variety - Delicious or Red Delicious - brought an average realized retail price of 6.8 cents per pound.

Among the 33 varieties of eastern apples, a small quantity of Cortland apples, in cartons, realized 6 cents per pound, and McIntosh apples, likewise in cartons and relatively small in quantity, brought 5.4 cents per pound. Of the eastern apples sold in quantities of 1,000 pounds or more per week, the McIntosh brought the highest Price per pound (4.5 cents), the Greening ranked second with 3.9 cents per pound; the York third with 3.6 cents per pound; the Delicious fourth with 3.5 cents per pound, and Winesaps fifth with 3.3 cents per pound. The two varieties of eastern apples which brought lowest prices were the Ben Davis and the Cano.

Among eastern apples, the highest spoilage (7.2 pounds per 100 pounds) was reported for Pippins and crab apples; both of which were sold in relatively small quantities. Among eastern apples which sold in substantial quantities, the heaviest spoilage (5.8 pounds per 100) was reported for the Northern Spy and the McIntosh was second with 3.9 pounds per 100.

The highest proportion of spoilage for all varieties was reported on a small quantity of western apples of the Winesap variety (7.3 pounds per 100). On the average, however, spoilage on eastern and western apples was about the same. Average spoilage on eastern apples was 3.3 pounds and on western apples 3.1 pounds per 100.

Table 42.— Total quantity sold weekly and average realized retail selling price, gross retail margin and spoilage incurred for each variety of apples, as reported by New York City Retailers <sup>1/</sup>, November 1939

Variety	Quantity sold weekly		Average realized retail selling price per pound	Average gross retail margin	
	Total Pounds	Percent age of total		Per pound	Percentage of realized retail price per pound
	Pounds	Cents		Cents	Percent
Eastern apples:					
McIntosh (bu.)	300,937	31.6	3.9	4.5	1.9
McIntosh (cartons)	13,804	1.4	1.5	5.4	.7
Total or average	314,741	33.0	3.8	4.5	1.8
Greening	137,241	14.4	2.3	3.9	1.6
Cortland (bu.)	64,580	6.8	2.5	3.0	1.2
Cortland(cartons)	780	.1	—	6.0	1.7
Baldwin	60,117	6.3	3.2	2.6	1.1
Delicious	59,002	6.2	3.7	3.5	1.4
Rome Beauty	28,573	3.0	2.5	2.7	1.3
York	19,990	2.1	3.4	3.6	1.5
Northern Spy	18,442	1.9	5.8	3.2	1.3
Jonathon	12,616	1.3	2.8	2.7	1.2
Winesap	11,871	1.2	4.6	3.3	.9
Bon Davis	11,712	1.2	2.0	1.9	1.1
Golden Delicious	9,348	1.0	4.3	4.1	1.8
Snow	7,968	.8	2.2	2.4	1.0
Wolf River	7,656	.8	2.3	3.2	1.7
Stayman	6,956	.7	1.8	3.8	1.0
Winter Banana	6,780	.7	5.0	2.1	.9
Wealthy	4,772	.5	1.4	3.4	1.6
Tompkins King	3,696	.4	1.5	2.2	1.1
Gano	3,120	.3	4.6	1.8	.8
Stark	2,736	.3	2.5	2.2	1.2
Opalescent	2,616	.3	4.5	4.5	2.4
Spitzenberg	1,864	.2	2	4.2	—
Barringer	918	.1	1.1	2.6	1.2
Pippin	810	.1	7.2	2.8	1.0
"Cooking"	576	.1	4.5	2.9	1.3
Hubbardston	480	.1	1.7	2.5	.9
Black Twig	480	.1	—	3.8	2.6
Nero	240	2/	—	3.3	1.8
Crab	138	2/	7.2	4.6	2.7
New York State	96	2/	—	5.0	2.9
Twenty-Ounce	96	2/	—	3.8	2.0
Imperial	90	2/	6.7	3.1	-0.2
Lady	70	2/	—	28.6	14.3
Newtown Pippin	60	2/	6.6	3.3	.6
Russet	48	2/	4.2	4.8	2.3
Unknown varieties	3,064	.3	3.9	2.7	1.1
Total or average	804,343	84.4	3.3	3.8	1.6
Western apples:					
Delicious	112,264	11.8	3.1	6.8	1.9
Rome Beauty	17,006	1.8	3.2	7.3	2.5
Spitzenberg	7,365	.8	1.7	7.1	2.7
Golden Delicious	6,861	.7	2.7	9.8	3.6
Jonathon	1,705	.2	1.5	6.0	1.8
Lady	1,008	.1	.8	24.1	10.0
Winter Banana	660	.1	2.6	4.1	1.8
McIntosh(Canadian)	440	2/	—	6.4	3.2
Newtown	303	2/	2.0	7.1	2.6
Winesap	220	2/	7.3	5.8	1.0
Quince	220	2/	2.3	9.2	2.4
Unknown varieties	264	2/	5.7	6.8	1.8
Total or average	148,321	15.6	3.1	7.1	2.1
TOTAL, all varieties	952,664	100.0	3.2	4.3	1.7

<sup>1/</sup> Includes 422 fruit and vegetable stores; 361 independent grocery stores; 277 chain grocery stores; 319 pushcart operators; 71 wagon or motor hucksters; and 66 meat markets, representing a cross-section of all income areas.

<sup>2/</sup> Less than 0.1 percent.

Since spoilage figures on eastern and western apples were so nearly similar, it might be expected that gross retail margins might likewise be similar, but such was not the case. The average gross margin on eastern apples was 1.6 cents per pound (or 42 percent of the gross retail price) whereas on western apples it was 2.1 cents per pound but only 30 percent of the gross realized retail price.

The percentage of gross margins on western apples ranged from 17 percent on Winesaps to 50 percent on Canadian McIntosh. On eastern apples, percentages of gross margin ranged from a 7 percent loss on the Imperial variety to a 68 percent gross profit on the Black Twig variety. Curiously, the gross margin on eastern Winesaps was likewise relatively low.

#### PROPORTION OF STORES HANDLING EACH VARIETY

Out of the 33 named varieties of eastern apples, only 6 were handled by 10 percent or more of all outlets which sold eastern apples (table 43). In order of importance, these 6 varieties were (1) McIntosh; (2) Greening; (3) Delicious; (4) Baldwin; (5) Cortland, and (6) York.

The practices of various types of outlets, with regard to varieties handled, differed considerably. For example, 91 percent of the fruit and vegetable stores handled McIntosh apples in contrast with 51 percent of the wagon or motor hucksters and 44 percent of the pushcart operators (table 43). Of the outlets included in this survey, chain grocery stores were the only ones which handled apples in cartons and these were all of the McIntosh and Cortland varieties.

Of the 11 named varieties of western apples, the Delicious (Red or Standard) variety (handled by 60 percent) and the Rome Beauty (handled by 13 percent) were the only ones stocked by more than 6 percent of the outlets which handled western apples. Only 15 percent of the wagon or motor hucksters and 24 percent of the pushcart operators sold western Delicious apples, in contrast with 91 percent of the meat markets and 79 percent of the fruit and vegetable stores. Chain grocery stores and meat markets merchandised relatively large quantities of apples of the Rome Beauty variety.

These data concerning varietal distribution by type of retail outlet seem to indicate a need for intensive promotional work with certain varieties. They may also indicate the desirability of attempting to concentrate production to an even greater extent, in what apparently are the most popular varieties.

Table 43.— Proportion of stores handling each variety of apples, as reported by 1,516 retail outlets, New York City, November 1939

Variety	Proportion of stores handling each variety, by type of store						All retail outlets	
	422 fruit and vegetable stores	Grocery stores		66 meat markets	319 pushcart operators	71 wagon or motor hucksters	Total	Percent-age of total stores
		361 independents	277 chain stores					
	Percent	Percent	Percent	Percent	Percent	Percent	Number	Percent
<u>Eastern apples:</u>								
Barringer	1/	1/	-	-	1/	-	3	1/
Baldwin	36	16	5	21	8	35	290	19
Ben Davis	1	1/	1	2	-	10	16	1
Black Twig	1/	-	-	-	-	-	1	1/
"Cooking"	1	1/	1/	-	-	1	6	1/
Cortland (bushel)	23	6	12	29	7	13	202	13
Cortland (carton)	-	-	1	-	-	-	2	1/
Crab	-	-	1/	-	1/	-	2	1/
Delicious	35	15	13	14	17	18	315	21
Golden Delicious	10	2	-	8	4	1	68	4
Greening	78	52	83	88	4	15	821	54
Hubbardston	-	-	-	-	1/	-	1	1/
Jonathon	7	2	1/	5	3	4	53	3
King(Tompkins King)	1	-	1/	3	1	3	10	1
McIntosh (bushel)	91	69	61	83	44	51	1,037	68
McIntosh (carton)	1/	-	28	-	-	-	79	5
New York State	-	1/	-	-	-	-	1	1/
Newtown Pippin	1/	-	-	-	-	-	2	1/
Northern Spy	13	3	1	5	5	4	90	6
Opalescent	1	1	1	2	1/	1	16	1
Pippin	1/	1	1/	-	1/	-	6	1/
Rome Beauty	14	2	3	9	3	7	97	6
Fusset	1/	-	-	-	-	-	1	1/
Snow	1	-	-	-	-	-	9	1
Spitzenburg	-	1/	1	2	-	-	5	1/
Stark	1	1	-	2	-	-	10	1
Stayman	1	1/	13	2	-	-	39	3
Twenty-ounce	-	1/	-	-	-	-	1	1/
Wealthy	3	2	1	3	1	-	28	2
Winesap	1	1	22	5	-	1	73	5
Winter Banana	3	1	-	-	2	3	24	2
Wolf River	4	2	-	-	1/	-	22	1
York	20	10	5	14	1	7	153	10
Gano	-	-	-	-	1/	-	2	1/
Imperial	-	-	1/	-	-	-	1	1/
Lady	1/	-	-	-	-	-	1	1/
Nero	1/	-	-	-	-	-	1	1/
Unknown eastern	3	1	1	2	1	1	24	2
<u>Western apples:</u>								
Delicious	79	68	67	91	24	15	912	60
Golden Delicious	9	7	8	15	-	-	96	6
Jonathan	2	1	1	2	-	-	15	1
Newtown	1/	1	1	-	-	-	5	1/
Rome Beauty	15	10	27	32	-	-	195	13
Spitzenburg	3	3	15	9	-	1	72	5
Winesap	1/	-	1	-	-	-	5	1/
Winter Banana	1	-	-	-	-	-	3	1/
Quince	1/	-	-	-	-	-	1	1/
Lady	2	4	2	6	-	-	36	2
Canadian McIntosh	1/	-	-	-	-	-	1	1/
Unknown western	-	-	-	-	1/	1	2	1/

1/ Less than 1 percent.

#### GRADES OF APPLES REPORTED SOLD

Where possible, the grades of apples sold by each retailer were identified by markings on the fruit or container as it was displayed. If no such markings were available, the retailer was asked to indicate the grades sold.

Out of the 804,273 pounds of eastern apples of all varieties, exactly three-fourths were indicated to be of U.S. No. 1 grade or better, 10 percent of the U. S. No. 2 grade, 11 percent were reported as ungraded, and only 4 percent the grade was unknown (table 44). The relation of income to grade was strikingly shown when sales in the lowest-income areas were contrasted with sales in the highest-income neighborhoods. In the lowest-income areas, only 58 percent of the apples were described as U. S. No. 1 or better compared with 88 percent in the highest-income areas. Sales of ungraded apples made up 20 percent in the lowest-income areas and 6 percent in the highest-income neighborhoods.

Out of 147,313 pounds of western apples, 77 percent were reported as of the "Extra Fancy" grade, 11 percent as "Fancy", 10 percent as "U. S. No. 1", and 1 percent as "Choice". The relation of income to grade was clearly shown. In the lowest-income areas, only 40 percent of the western apples sold were of the top or "Extra Fancy" grade, while in the highest-income neighborhoods 95 percent were of that grade. Sales of the "Fancy" grade averaged 24 percent in the lowest-income areas and 4 percent in the highest-income areas. Of all western apples sold, sales in lowest-income areas amounted to only 20 percent, while those in the highest-income neighborhoods were 45 percent. Of all eastern apples sold, about 27 percent was disposed of in lowest-income areas and about 30 percent in highest-income neighborhoods.

Limited space permits discussion of grades for only a few leading varieties. Of all eastern McIntosh apples sold, 84 percent were reported as of U. S. No. 1 grade or better, only 5 percent of U. S. No. 2 grade, and 8 percent ungraded. In the lowest-income areas, 75 percent of the McIntosh apples sold were reported as of U. S. No. 1 grade or better; whereas, in the highest-income areas, 96 percent were of U. S. No. 1 grade or better (table 45). In the lowest-income areas, the average realized retail price for U. S. No. 1 McIntosh apples was 3.4 cents per pound and in the highest-income areas 5.7 cents per pound. Ungraded or unclassified McIntosh apples made up 16 percent of sales in the lowest-income areas, but less than 1 percent in the highest-income areas.

More Greening than McIntosh were reported to be U. S. No. 1 grade or better. The average for all Greening apples was 90 percent.

Table 44.—Quantities of apples of specified grade reported sold weekly by New York City Retailers during November 1939

Grade reported sold	Total quantity sold weekly Pounds	Quantities and proportions sold in various income areas <sup>1/</sup>									
		Low-income areas			Medium-low income areas			Medium-high income areas			High income areas
		Quantity sold weekly Pounds	Percent of total Pounds	Percent of total Pounds	Quantity sold weekly Pounds	Percent of total Pounds	Percent of total Pounds	Quantity sold weekly Pounds	Percent of total Pounds	Percent of total Pounds	Percent of total Pounds
<u>Eastern apples</u>											
U. S. Fancy	12,962	2	3,114	1	598	2/	456	2/	8,794	4	
U. S. No. 1	584,039	73	121,157	57	112,377	65	150,396	83	199,619	84	
U. S. Commercial	2,448	2/	1,344	1	48	2/	-	-	1,056	2/	
U. S. No. 2	78,882	10	23,434	11	19,674	12	23,130	13	12,594	5	
Ungraded	91,913	11	43,584	20	31,153	18	2,944	2	14,232	6	
Grade unknown	34,029	4	20,293	10	7,410	4	4,756	2	940	2/	
Totals	804,273	100	213,556	100	171,720	100	181,732	100	237,265	100	
<u>Western apples</u>											
Extra Fancy	112,995	77	11,748	40	16,662	62	21,652	85	62,933	95	
Fancy	16,674	11	7,134	24	3,502	13	3,603	14	2,135	4	
U. S. No. 1	14,670	10	7,832	27	6,534	24	-	-	264	2/	
Choice	880	1	880	3	-	-	-	-	-	-	
U. S. No. 2	44	2/	44	2/	-	-	-	-	-	-	
C Grade	44	2/	220	1	132	1	-	-	-	-	
Ungraded	352	2/	1,386	5	2/	132	1	132	1	132	2/
Grade unknown	1,694	1	-	-	-	-	-	-	-	-	
Totals	147,313	100	29,244	100	26,374	100	25,387	100	65,808	100	

<sup>1/</sup> For explanation of income areas see footnote 2 table 5, page 10.

<sup>2/</sup> Less than 1 percent.

Table 45.—McIntosh apples 1/: Quantities of specified grades of eastern apples of the McIntosh variety, sold weekly in various income areas, with retail prices and gross retail margins, as reported by New York City Retailers, November 1939

Total quantities sold weekly and proportions of each grade sold by income area <sup>2/</sup>									
All income areas		Low-income areas		Medium-low income areas		Medium-high income areas		High income areas	
Quantity sold weekly	Percent	Quantity sold weekly	Percent	Quantity sold weekly	Percent	Quantity sold weekly	Percent	Quantity sold weekly	Percent
Grade sold	Pounds	Pounds	Percent	Pounds	Percent	Pounds	Percent	Pounds	Percent
U. S. Fancy	10,398	2,778	3	1,26	3/	-	-	7,494	9
U. S. No. 1	241,219	67,575	72	42,556	73	61,816	90	69,272	87
U. S. Commercial	960	960	1	-	-	-	-	-	-
U. S. No. 2	16,410	4,146	4	5,568	10	3,912	6	2,784	3
Ungraded or unclassified	24,060	15,324	16	8,016	14	3,384	3/	3,336	3/
Grade unknown	7,890	3,372	4	1,794	3	2,616	3/	108	3/
Average realized retail prices and margins per pound, by income areas <sup>2/</sup>									
Retail price	Gross margin	Retail price	Gross margin	Retail price	Gross margin	Retail price	Gross margin	Retail price	Gross margin
Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents
U. S. Fancy	6.7	2.8	4.5	1.8	1.3	-	-	7.6	3.2
U. S. No. 1	4.7	2.0	3.4	1.3	1.8	5.2	2.4	5.7	2.6
U. S. Commercial	2.4	1.4	2.4	1.1	-	-	-	-	-
U. S. No. 2	3.0	1.4	3.0	1.2	2.2	3.1	1.7	4.4	2.0
Ungraded or unclassified	2.6	1.1	2.6	1.0	2.3	1.1	4.2	1.5	4.7
Grade unknown	3.0	1.1	1.8	0.6	4.2	1.4	3.8	1.7	4.6

<sup>1/</sup> Does not include any apples of McIntosh variety reported as sold in cartons.

<sup>2/</sup> For explanation of income areas, see footnote 2 table 5, page 10.

<sup>3/</sup> Less than 1 percent.

In the lowest-income areas, 71 percent of the Greenings were reported as U. S. No. 1 (and sold at 3.2 cents per pound) in contrast with 95 percent in the highest-income areas (where U. S. No. 1 apples sold at 4.4 cents per pound) (table 46).

Apples of the Cortland variety, sold by these retailers, did not grade as high as either McIntosh or Greening apples. Of all apples of the Cortland variety sold weekly, 72 percent were reported of U. S. No. 1 grade, 13 percent of U. S. No. 2 grade and 8 percent ungraded or unclassified (table 47). The proportion of U. S. No. 1 grade Cortland apples sold in lowest-income areas was 58 percent in contrast with 70 percent in highest-income areas.

It appears that shippers and possibly consumers were not as insistent on "high quality" for Baldwin apples as for some other varieties. Only 42 percent of the Baldwin apples sold were reported as of the U. S. No. 1 grade, while 19 percent were U. S. No. 2, and 26 percent were reported as "ungraded or unclassified" (table 48). In the lowest-income areas, only 13 percent of Baldwin sales were of the U. S. No. 1 grade while 15 percent were of the U. S. No. 2 grade and 41 percent were ungraded or unclassified. In the highest-income area, 54 percent of the Baldwin apples were reported as U. S. No. 1 grade, but even in areas where consumers presumably could pay the price demanded for No. 1 apples, the sales ran 16 percent No. 2 grade and 30 percent ungraded or unclassified.

Slightly more than 59,000 pounds of eastern apples of the Delicious variety were sold by these retailers weekly during November, 58 percent of which were of the U. S. No. 1 grade and 21 percent of the U. S. No. 2 grade. In the lowest-income areas, 40 percent of the Delicious apples sold were reported of U. S. No. 1 grade and in the highest-income areas 91 percent (table 49). On the other hand, only 3 percent of the sales were reported of the U. S. No. 2 grade in the highest-income neighborhoods, in contrast with 31 percent in lowest-income neighborhoods.

Of the 112,264 pounds of western apples of the Delicious variety (Standard or Red Delicious) sold by these retailers, practically all were reported as of U. S. No. 1 grade or better (98 percent). Of the top grade, however, - "Extra Fancy" - sales in the lowest-income areas ran 41 percent of the total while in the highest-income neighborhoods they made up 96 percent of the total (table 50).

#### SIZES OF APPLES SOLD

From analysis of all apples for which size data were available, it appears that all the western apples were sorted uniformly to specific sizes in contrast with about 2 percent of the eastern apples. Almost all of the eastern apples which had been sorted into specific sizes were reported as Fancy grade. Some of the eastern apples were

Table 46.— Greening apples: Quantities of specified grades of eastern apples of the Greening variety, sold weekly in various income areas, with retail prices and gross retail margins, as reported by New York City Retailers, November 1939.

Total quantities sold weekly and proportions of each grade sold by income area <sup>1/</sup>										
Grade sold	All income areas		Low-income areas		Medium-low income areas		Medium-high income areas		High income areas	
	Quantity sold weekly	Percent age of total	Quantity sold weekly	Percent age of total	Quantity sold weekly	Percent age of total	Quantity sold weekly	Percent age of total	Quantity sold weekly	Percent age of total
U. S. Fancy	1,008	1	240	4	-	-	288	1	480	1
U. S. No. 1	121,944	89	1,675	71	19,653	77	32,146	88	65,470	95
U. S. No. 2	7,204	5	192	3	2,604	10	3,016	8	1,392	2
Ungraded or unclassified	3,960	3	504	7	2,256	9	384	1	816	1
Grade unknown	3,125	2	1,008	15	2,996	14	612	2	509	1
Average realized retail prices and margins by pound, by income areas										
Retail price	Gross margin	Retail price	Gross margin	Retail price	Gross margin	Retail price	Gross margin	Retail price	Gross margin	
Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	
U. S. Fancy	4.5	2.4	3.3	2.0	-	4.7	2.4	5.0	2.7	
U. S. No. 1	4.0	1.6	3.2	1.2	3.6	1.3	3.7	1.4	1.9	
U. S. No. 2	2.7	1.4	2.8	1.0	2.4	1.5	2.5	1.1	1.5	
Ungraded or unclassified	2.3	0.9	1.8	0.7	2.1	1.0	2.7	0.9	3.2	
Grade unknown	2.8	1.0	1.5	0.5	3.5	1.4	2.7	0.6	4.0	

<sup>1/</sup> For explanation of income areas, see footnote 2 table 5, page 10.

Table 47.—Cortland apples: Quantities of specified grades of eastern apples of the Cortland variety, sold weekly in various income areas, with retail prices and gross retail margins, as reported by New York City Retailers, November 1939

Total quantities sold weekly and proportions of each grade sold by income areas <sup>1/</sup>									
All income areas		Low income areas		Medium-low income areas		Medium-high income areas		High income areas	
Quantity sold weekly	Percent age of total	Quantity sold weekly	Percent age of total	Quantity sold weekly	Percent age of total	Quantity sold weekly	Percent age of total	Quantity sold weekly	Percent age of total
Grade sold	Pounds	Pounds	Percent	Pounds	Percent	Pounds	Percent	Pounds	Percent
U. S. No. 1	46,238	72	8,664	58	9,060	67	18,836	85	9,678
U. S. No. 2	8,172	13	720	5	330	3	240	14	3,832
Ungraded or unclassified	5,424	8	1,968	13	216	24	—	—	240
Grade unknown	4,746	7	3,500	24	864	6	192	1	90

Average realized retail prices and margins per pound, by income areas <sup>1/</sup>									
Retail price		Gross margin	Retail price						
Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents
U. S. No. 1	3.3	1.4	3.0	1.1	2.9	1.3	3.4	1.4	3.7
U. S. No. 2	2.7	1.2	2.5	1.0	3.0	1.2	2.7	1.1	2.7
Ungraded or unclassified	1.6	0.6	1.4	0.3	1.7	0.8	—	—	2.8
Grade unknown	2.1	0.7	2.0	0.7	2.3	0.8	4.3	1.5	2.8

<sup>1/</sup> For explanation of income areas, see footnote 2 table 5, page 10.

<sup>2/</sup> Less than 1 percent.

Table 48.—Baldwin apples: Quantities of specified grades of eastern apples of the Baldwin variety, sold weekly in various income areas, with retail prices and gross retail margins, as reported by New York City Retailers, November 1939

Total quantities sold weekly and proportions of each grade sold by income areas <sup>1/</sup>									
All income areas		Low income areas		Medium-low income areas		Medium-high income areas		High income areas	
Quantity sold weekly	Percent age of total	Quantity sold weekly	Percent age of total	Quantity sold weekly	Percent age of total	Quantity sold weekly	Percent age of total	Quantity sold weekly	Percent age of total
Pounds	Percent	Pounds	Percent	Pounds	Percent	Pounds	Percent	Pounds	Percent
U. S. No. 1	25,473	42	2,280	13	5,193	43	12,156	62	5,844
U. S. Commercial	384	1	384	2	-	-	-	-	54
U. S. No. 2	11,748	19	2,556	15	1,452	12	5,988	30	1,752
Ungraded or unclassified	15,524	26	6,984	41	4,568	37	660	3	3,312
Grade unknown	6,988	12	5,040	29	960	8	988	5	30
Average realized retail prices and margins per pound, by income areas <sup>1/</sup>									
Retail price	Gross margin Cents	Retail price Cents	Gross margin Cents	Retail price Cents	Gross margin Cents	Retail price Cents	Gross margin Cents	Retail price Cents	Gross margin Cents
U. S. No. 1	3.4	1.6	2.9	1.2	3.2	1.5	3.2	1.4	4.1
U. S. Commercial	2.2	1.6	2.2	1.6	-	-	-	-	2.0
U. S. No. 2	2.4	1.1	2.4	1.0	2.2	1.0	2.4	1.1	2.2
Ungraded or unclassified	2.1	0.8	1.8	0.7	2.0	0.9	2.4	1.0	0.7
Grade unknown	1.5	0.5	1.3	0.5	1.5	0.6	2.6	0.7	1.0

1/ For explanation of income areas, see footnote table 5, page 10.

Table 49.- Delicious apples (eastern): Quantities of specified grades of eastern apples of the Delicious variety, sold weekly in various income areas, with retail prices and gross retail margins, as reported by New York City Retailers, November 1939

Total quantities sold weekly and proportions of each grade sold by income areas 1/									
All income areas		Low income areas		Medium-low income areas		Medium-high income areas		High income areas	
Quantity sold weekly	Percent-	Quantity sold weekly	Percent-	Quantity sold weekly	Percent-	Quantity sold weekly	Percent-	Quantity sold weekly	Percent-
Grade sold	Pounds	Pounds	Percent	Pounds	Percent	Pounds	Percent	Pounds	Percent
U. S. Fancy	182	2/	-	-	-	48	1	134	2
U. S. No. 1	34,031	58	10,533	40	12,316	63	82	6,054	91
U. S. No. 2	12,724	21	8,232	31	3,936	20	6	192	3
Ungraded or unclassified	7,433	13	4,008	15	2,712	14	9	216	3
Grade unknown	4,577	8	3,840	14	504	7	2	89	1

Average realized retail prices and margins per pound, by income areas 1/

Retail price cents	Gross margin cents	Retail price cents	Gross margin cents	Retail price cents	Gross margin cents	Retail price cents	Gross margin cents	Retail price cents	Gross margin cents
U. S. Fancy	1.5	-	-	-	-	4.2	.4	5.8	1.8
U. S. No. 1	1.6	3.3	1.0	3.9	1.7	5.2	2.2	5.4	2.1
U. S. No. 2	1.1	2.6	1.0	2.6	1.4	3.7	2.1	4.8	2.0
Ungraded or unclassified	0.8	1.8	0.8	1.8	0.6	3.2	0.5	5.1	1.9
Grade unknown	1.6	3.0	1.5	3.6	1.4	4.8	2.5	5.6	1.6

1/ For explanation of income areas, see footnote 2 table 5, page 10.

2/ Less than 1 percent.

Table 50.— Delicious apples (western): Quantities of specified grades of western apples of the Delicious variety, sold weekly in various income areas, with retail prices and gross retail margins, as reported by New York City Retailers, November 1939

Grade sold	Total quantities sold weekly and proportions of each grade sold by income areas										Average realized retail prices and margins per pound, by income areas									
	All income areas					Low income areas					Medium-low income areas					Medium-high income areas				
	Quantity sold weekly	Percent age of total	Quantity sold weekly	Percent age of total	Quantity sold weekly	Percent age of total	Quantity sold weekly	Percent age of total	Quantity sold weekly	Percent age of total	Quantity sold weekly	Percent age of total	Quantity sold weekly	Percent age of total	Quantity sold weekly	Percent age of total	Quantity sold weekly	Percent age of total	Quantity sold weekly	Percent age of total
Extra Fancy	82,059	73	11,407	41	15,294	62	18,341	85	37,017	96										
Fancy	14,332	12	6,606	24	3,342	14	3,174	14	1,210	3										
U. S. No. 1	13,519	13	7,656	28	5,687	23	-	-	176	2										
Choice	880	2	830	3	-	-	-	-	-	-										
U. S. No. 2	44	1	44	2	-	-	-	-	-	-										
Grade C	44	2	-	-	-	-	-	-	-	-										
Ungraded Grade unknown	132	2	-	-	-	-	-	-	-	-										
	1,254	1	1,078	4	-	-	-	-	132	1										
<i>1/</i> For explanation of income areas, see footnote 2 table 5, page 10.																				
<i>2/</i> Less than 1 percent.																				

reported as sorted into sizes of less than 2-inches minimum. Comparatively large proportions of these sizes were in the U. S. No. 2 grade. The "2-1/2 inch and up" size accounted for 65 percent or more of the total quantity of eastern apples handled for which size data were available and also made up 69 percent of those reported as of the U. S. No. 1 grade. Except for the "Fancy" grade, the "2-1/2 inch and up" size was the most important for all known grades. Only 9 percent of the eastern apples were reported as smaller than 2-1/4 inch minimum, and the quantity sold as larger than a 3-inch minimum was small (table 51).

About two-thirds of the quantity of western apples handled by these retailers were accounted for by four specific sizes - 30, 83, 100, and 113 (table 52). Sizes larger than 80 to the box accounted for 3 percent and sizes requiring 163 or more to the box accounted for about 5 percent. The range of sizes in the "Fancy" and "Extra Fancy" grades was about the same. The relative importance of these sizes was not the same in all income areas. In the highest-income areas, size 83 to the box made up 43 percent of the total in contrast with 28 percent in the lowest-income areas. Boxes containing more than 100 apples made up 35 percent of sales of western apples in lowest-income areas and 31 percent in highest-income areas.

#### BRANDS OF APPLES HANDLED BY RETAILERS

##### Eastern Apples

The bulk of eastern apples (63 percent of the tonnage) either was sold without any brand name or under a brand unknown to the retailer. The remaining quantity (294,731 pounds) sold weekly was handled under 45 designations or brands (table 53). A general area of origin seems often to have been given by the retailer when brand names were requested. For example, relatively large quantities were reported sold under such brand names as "Hudson Valley", "New York State", "Vermont", "Rhode Island", "Deleware", "Pennsylvania", and "Virginia". It is probable that there were some definite brands, in which some of the terminology indicated did appear, but it is more likely that these were, for the most part, not "brands" but merely descriptions of apple-producing areas. Approximately two-thirds of the eastern "branded" apples were designated as "New York State", and about 16 percent as "Hudson Valley". If the "brands" of eastern apples, which probably referred to state of origin rather than to any label on the product, are excluded, the actual number of "brands" totaled 35.

##### Western Apples

In many instances the original container had been disposed of and the store manager did not know the brands of western apples sold during the past week. This was true of 416 out of 1,392 lots of

Table 51. — Proportion of eastern apples sold weekly, of each known specified size and grade, as reported by New York City retailers, November 1939

Size designation	Proportion of each specified grade						All grades		
	Fancy	U. S. No. 1	U. S. No. 2	Commercial	Ungraded or unclassified	Unknown	Total quantity	Total quantity	Percentage of total
	Percent	Percent	Percent	Percent	Percent	Percent	Pounds	Pounds	Percent
<b>Minimum size:</b>									
Less than 2 inch	-	1	9	-	3	1	14,963	2	
2 inch and up	1	6	21	-	4	3	47,682	7	
2-1/4 inch and up	2	4	14	-	4	53	47,496	7	
2-1/2 inch and up	15	69	48	56	72	35	479,979	65	
2-3/4 inch and up	10	7	2	-	1	6	46,084	6	
3 inch and up	19	11	6	44	16	1	82,141	11	
3-1/2 inch and up	-	1	1	-	1	1	3,184	1	
4 inch and up	-	-	-	-	-	1	336	1	
Total	47	39	100	100	100	100	721,865	98	
<b>Uniform size:</b>									
Large	5	1/2	1/2	-	-	-	-	720	
96's - 1/2 bushel	14	1/2	1/2	-	-	-	-	1,633	1
112's	18	1/2	1/2	-	-	-	-	3,973	1
Small	20	1/2	1/2	-	-	-	-	4,914	1
	1/2							348	
Total	53	1	-	-	-	-	1/2	11,583	2
Total	100	100	100	100	100	100	-	-	100
Quantity (pounds) 2/	12,932	567,810	65,102	2,400	60,505	25,319	733,458	100	

1/ Less than 1 percent.  
2/ Omitted 70,815 pounds for which size was not available, and 70 pounds of fancy applies.

Table 52.- Proportion of western apples sold weekly of each known specified size and grade and proportion disposed of in each income area, as reported by New York City Retailers, November 1939

Size designation (count per box)	Proportion each size was of the total						Proportion each size was of the total					
	All sizes			Medium-high income			Medium-low income			High income		
	Fancy	U.S. No. 1	Others and unknown 1/	Total quantity	Percent age of total	Percent	Low income	Percent	Percent	Percent	Percent	Percent
56 and larger												
64	1	2/	-	1,144	1	2	2/	2/	1	1	1	1
72	2	1	-	2,926	2	1	2	1	1	1	3	3
80	4	4	2	5,841	4	7	3	3	3	3	4	4
88	11	3	38	17,908	12	17	21	10	10	10	7	7
96	31	31	18	43,641	30	28	12	17	17	17	43	43
100	2/	1	2/	506	1	2/	-	-	-	-	1	1
Total large	11	23	13	17,717	12	10	19	19	12	12	10	10
	60	63	71	62	89,683	62	65	57	44	44	69	69
	113	15	14	7	18,830	13	17	17	12	12	10	10
	125	9	9	29	13,193	9	12	9	12	12	7	7
	138	6	6	-	10,327	7	2	10	13	13	6	6
	150	7	2	-	5,748	4	2/	2	7	7	5	5
Total medium	34	32	29	36	48,098	33	31	38	44	44	28	28
	163	2	1	-	2,354	2	3	1	4	4	1	1
	180	2	4	-	3,108	2	-	1	3	3	2	2
	198	2	2/	-	1,584	1	1	3	4	4	2/	2/
	216	2/	-	2	396	2/	-	-	1	1	1	1
Total small	6	5	-	2	7,442	5	4	5	12	12	3	3
Total	100	100	100	100	-	100	100	100	100	100	100	100
Total quantity	Pounds 112,181	Pounds 16,564	Pounds 14,630	Pounds 1,848	Pounds 145,223	Pounds 3/	Pounds 27,990	Pounds 26,830	Pounds 24,661	Pounds 65,742		

1/ Includes Choice, U.S. No. 2, Grade C, and ungraded.

2/ Less than 1 percent.

3/ Does not include 2,090 pounds for which size was unknown and 1,008 pounds of Lady apples.

Table 53. - Alphabetical list of "Brands" of apples reported handled by retail outlets surveyed in New York City, November 1939

"Brands" of eastern apples		"Brands" of western apples	
4 Aces	New York State	Apex	Heavy Pack
Ambrose	Northwestern		Hood River
Case, B. J.	Orchard Chest Farms	Bell Fruit Farm	Horan
Connecticut Valley Orchards		Big Boy	
Delaware	Pennsylvania	Big Y	Jill
Eatmore	Pride of the N. E.	Blue Diamond	Jim Hill
	Putman & Son, W. J.	Blue Goose	Jo-Jo
	Rhode Island	British Columbia	
Fishkill		Buck Way	Keystone
Flavor Fine		Calex	Lenaape
Haven Hill	Skookum	Canadian	Lepley
Hill-E Here	Sodus Fruit Farm	Capital	
Hitchings	Sullivan, J. P.	Careful	Maple
Home	Sunnyridge	Carnation	Merley
Hudson Valley	Thomas Bros.	Cascade	Met-how
Inderkirk Farms	Totter	Cashmere Pioneer	Mill Bros.
	Twin, O.	Gowain	Moon
Jim Hill		Cruiser	Mt. Core
K. O.		Dainty Maid	Oh Boy
Lyman Farm	Upo River	Dennison	Oh Yes
Marshall Farms	Vermont	Depend On	Okanagan Valley
Massachusetts	Virginia	Don't Worry	
Maxwell and O'Brien	Wallstone Orchards	Duckwall	Perhain Premium Pack
Merrit Orchards	Wayne County	Eatmore	Pine Tree
Moll, Peter H.	Weed, Garlie & Wilson	Elevation	Pride of the North
Mountains (Mountaineer)	Western New York	Empire	Quality
	White County		
		Foothill	Red-I-Eat
			Ribbon
			Rose Hill
			Royal Purple
			Yakima
			Zenith
			Haskell

western apples, or about 27 percent of the total tonnage sold. The remaining tonnage, aggregating 108,819 pounds weekly, was identified under 81 "brand" names, which will be found listed in alphabetical order in table 53. The largest volume of apples reported handled under any one brand was 13,765 pounds per week. Ten brands accounted for 68 percent of the weekly volume of western apples, which was identified as to brand. Nine more brands accounted for an additional 16 percent. In other words, 19 brands accounted for about 84 percent of the sales of all western apples per week which could be identified as to brand. This means that the 62 remaining brands accounted for only 16 percent of all sales of western apples by brand.

The degree to which some of the brands, which are well known in the western apple-producing sections, actually cover the New York City market, seems to be a matter of considerable controversy. The following analysis of the operations of 7 large western shipping organizations may, therefore, be of interest. These 7 shipping organizations accounted for 64 percent of the tonnage for which brand information was available, and they supplied 69 percent of the retailers with a part or all of the western apples handled.

No one of these 7 shipping organizations supplied more than 13 percent of the total quantity of western apples sold under an identifiable brand and one supplied only 4 percent (table 54). No one shipping organization alone succeeded in supplying as many as one-fifth of the retailers.

The extent of coverage of the retail outlets by these 7 shipping organizations varied considerably. Shipper "E" had a 32 percent coverage and Shipper "A" a 23 percent coverage in the very highest-income neighborhoods, in contrast with 7 percent by Shipper "G" and 8 percent by Shipper "F". Shipper "B" had fairly uniform coverage in all income areas, but Shipper "E" covered only 9 percent of the low-income area outlets in comparison with 32 percent of the highest-income area outlets. Shipper "D" had about the same coverage in the lowest-income and in the highest-income areas, but relatively poor coverage in medium-income neighborhoods (table 55). Shipper "C" had a coverage of only 2 percent in lowest-income areas and of 15 percent in the highest-income neighborhoods. Data were not sufficiently detailed to indicate to what degree differences in the apples supplied by each shipper accounted for differences in distribution.

Analysis of the quantities of apples supplied to retailers by each shipper weekly shows that (1) only one shipper attained average sales per outlet which equaled or exceeded one box per day and that only in the lowest-income area; (2) sales per outlet averaged less than one-half box per day in about two-thirds of the groups; and (3) the largest average sales per outlet for the entire group of seven shippers occurred in the lowest and in the highest-income areas (table 56).

Table 54. Quantities of western apples, supplied by specified shippers and sold under specific brands weekly as reported by 934 retail outlets, New York City, November 1939 1/

Shipper	Number of brands supplied by shipper	Quantities sold weekly		Proportion of tonnage identified as to brand <u>Percent</u>
		Pounds	Boxes	
"A"	2	9,447	215	9
"B"	1	13,486	306	12
"C"	2	7,591	172	7
"D"	1	8,228	187	7
"E"	2	12,892	293	12
"F"	1	13,765	313	13
"G"	1	4,345	99	4
Others 2/	71	39,065	888	36
Total above	81	108,819	2,473	100
Brands Unknown	-	39,502	898	-
Total	-	148,321	3,371	-

1/ Complete or partially complete brand information was obtained from 704 retail outlets.

2/ This group of "Other" shippers is not given individual mention because of small volume. Only 5 of these 71 brands were sold in quantities of over 50 boxes per week and 36 brands sold in quantities of less than 5 boxes per week.

Table 55. - Proportion of stores handling western apples supplied by specified shippers, as reported by 704 New York City retailers, November 1939

Shipper	Percentage of outlets in each income area supplied by each shipper 1/						Total Percent	
	Low-income		Medium-low-income		High-income 2/			
	Percent	Percent	Percent	Percent	Percent	Percent		
"A"	5	5	3	6	23	9		
"B"	12	13	12	19	16	14		
"C"	2	4	8	5	15	8		
"D"	15	3	4	6	13	8		
"E"	9	21	11	17	32	18		
"F"	13	9	17	20	8	13		
"G"	2	9	12	8	7	8		
Combination	59	64	65	77	82	69		
Total number of outlets with brands named	Number	Number	Number	Number	Number	Number		
	129	148	179	84	164	704		

1/ These percentages are based on the 704 outlets for which brand information was obtained.

2/ Differences within the "high-income" area indicate the advisability of two groups; - therefore group 1 comprises the \$65 to \$79 rental areas and group 2 the \$100 or more rental areas.

Table 56. — Quantities of western apples supplied by specified shippers and sold under specific brands weekly, as reported by 488 retail outlets, New York City, November 1939

Shipper	Average weekly sales per outlet under specific brand in each income area				All income areas Boxes
	Low-income		medium-income	high-income	
	Boxes	Boxes	Boxes	Boxes	
"A"	3.8	4.7	1.9	2.7	3.5
"B"	2.5	6.2	2.2	2.1	3.1
"C"	13.0	4.2	2.2	1.5	3.3
"D"	4.7	3.8	4.5	1.1	3.3
"E"	2.5	2.5	1.3	2.1	2.3
"F"	4.7	3.3	3.0	4.1	3.5
"G"	1.6	1.2	1.5	1.7	1.8
Total 7 shippers	14.0	3.5	2.1	2.6	3.9
					3.2

1/ Differences within the "high-income" area indicate the advisability of two groups; group 1 comprises the \$65 to \$99 rental areas and group 2 the \$100 or more rental areas.

Delicious variety:

The Delicious (Standard and Red Delicious) variety made up 76 percent of the western apple tonnage sold weekly by the retailers included in this survey. Analysis of brand information indicates that 66 percent of the retailers handled Delicious apples shipped by one or more of the 7 shipper's organizations previously discussed. This percentage varied somewhat according to income from 59 percent in the lowest-income areas to 75 percent in the highest-income areas.

Approximately 68 percent of all apples of the Delicious variety supplied by the 7 shipping organizations and sold by outlets located in the highest-income areas, were reported to be Extra Fancy grade, size 100 and larger. Although the average price paid by consumers for western Delicious apples, size 100 and larger, was 7.9 cents per pound, the average price paid for tonnage supplied by Shipper "A" was 6.7 cents and for that supplied by Shipper "E" 6.8 cents per pound (table 57). Prices paid by consumers for Delicious apples supplied by the other specified shippers ranged from 7.5 to 8.2 cents per pound. These wide differences in retail prices were not the result of similarly wide differences in purchase prices. For example, the average cost price to retailers for Delicious apples supplied by Shipper "A" was \$2.28 per box and the cost for apples supplied by Shipper "E" was almost the same - \$2.35 per box. The difference in gross retail margin totaled 86 cents per box or almost 2 cents per pound.

Similar comparisons of the sales at retail of the quantities of western Delicious apples, size 100 or larger, supplied by these 7 shippers to each type of outlet showed that consumers paid 8.6 cents per pound to fruit and vegetable store operators, 8.3 cents in independent groceries and 6.4 cents to chain stores for Delicious apples supplied by Shipper "A". Comparable prices for Delicious apples supplied by Shipper "E" were 9.4 cents, 9.0 cents, and 8.0 cents, respectively.

SIZES OF WESTERN APPLES AND PRICES

It has long been the custom for carlot buyers of northwestern apples to "discount" the larger sizes of apples in comparison with medium sizes. Cooperative officials have frequently questioned the extent to which such discounts were justifiable. Analysis of sales by retailers in New York City seems to indicate that a valid reason may exist for such practices.

Large differences in retail prices paid by consumers existing during November, 1939 (table 58). The average price paid by consumers for "Extra Fancy" western apples of the Delicious variety was lowest in the lowest income areas; that is, the large sizes averaged 5.8 cents per pound in lowest income areas in contrast with 7.9 cents per pound in the highest-income areas. The average

Table 57. - Prices paid for western apples of the Delicious variety (Extra Fancy grade -- sizes 100 and larger) supplied by specified shippers and sold under specific brands, as reported by 197 retail outlets in the highest-income areas of New York City, November 1939

Shipper	Consumer's price per pound	Realized retail price, cost and margin per box		
		Realized retail price	Cost price at store	Gross margin
	Cents	Dollars	Dollars	Dollars
"A"	6.7	2.88	2.28	0.60
"B"	8.0	3.53	2.45	1.08
"C"	8.2	3.54	2.28	1.26
"D"	8.0	3.51	2.35	1.16
"E"	8.8	3.81	2.35	1.46
"F"	8.0	3.46	2.36	1.10
"G"	7.5	3.27	2.35	.92
Other	7.7	3.26	2.29	.97
Unknown	7.6	3.27	2.30	.97
Total	7.9	3.43	2.32	1.11

Table 58.- Quantities, prices and margins on large and medium sizes of western apples of the delicious variety (extra fancy grade) sold weekly, as reported by New York City Retailers, November 1939 1/

Income Area	Total quantity		Consumer price per pound		Realized retail price per box		Cost to retailer per box		Gross realized retail margin per box	
	Large size Boxes	Medium size Boxes	Large size Cents	Medium size Cents	Large size Dollars	Medium size Dollars	Large size Dollars	Medium size Dollars	Large size Dollars	Medium size Dollars
	160	78	5.8	6.5	2.47	2.77	1.85	2.22	0.62	0.55
Low-income .....	163	169	6.6	7.2	2.83	3.08	2.13	2.30	0.70	0.78
Medium-low-income .....	153	205	7.0	7.8	2.98	3.38	2.25	2.37	0.73	1.01
High-income 2/	93	140	7.0	7.8	2.98	3.32	2.38	2.28	0.60	1.04
Group 1 .....	422	149	7.9	8.1	3.13	3.46	2.32	2.20	1.11	1.26
Group 2 .....										
Total .....	991	741	7.2	7.6	3.06	3.25	2.21	2.29	0.85	0.96

1/ The large-size group includes all boxes of 100 or less apples to the box and the medium-size group includes all boxes of 113 to 150 apples to the box. The quantity of 163's and small was too limited for comparison.

2/ Group 1 indicates median rentals of \$65 to \$99 and group 2 median rentals of \$100 or more.

price per pound paid by consumers for medium sizes was higher than for the larger sizes in each of the 5 income areas. The average price paid by consumers for all income areas was 7.2 cents per pound for large sizes and 7.6 cents per pound for medium sizes.

On the other hand, the cost of these apples laid down at the retail store averaged lower for the large sizes than for medium sizes in the lowest, medium-low, and medium-high income areas (table 58). Large sizes cost retailers more than medium sizes in the two highest-income areas. Except in the lowest-income areas, gross retail margins obtained by these retailers averaged highest on the medium sizes. Since consumers generally paid more per pound for medium sizes and retailers obtained higher average retail margins on medium sizes, "discounting" the larger sizes by carlot buyers seems justified.

#### SOURCES OF SUPPLY OF APPLES HANDLED BY INDEPENDENT RETAILERS 3/

Information was made available by independent retailers to indicate the sources of supply of 627,428 pounds of eastern apples and 105,789 pounds of western apples, sold weekly during November, 1939.

For eastern apples, the major known source of supply was the large Washington Street Market on lower west-side Manhattan at which 37 percent of the apples were purchased by 25 percent of the retail outlets (table 59). The Bronx Terminal Market ranked second, accounting for 24 percent of the quantity handled and also was patronized by 24 percent of the retailers. The Wallabout Market was also an important source of supply, but purchases at the Gansevoort Market were insignificant. Only about 4 percent of the quantity handled was purchased at the retail store, but 11 percent of the stores obtained eastern apples in this manner.

Of all western apples handled, 43 percent was purchased in the Washington Street Market on lower west-side Manhattan by 28 percent of the retail outlets. The Bronx Terminal Market was the second most important source of supply for western apples, being patronized by about one-quarter of the retailers who bought 18 percent of the total western apple purchases there. Thirteen percent of these retailers (about 1 in 7) bought western apples at the retail store door, and 15 percent bought on the Wallabout Market. As might be expected, practices of individual stores varied considerably, both within and between types of stores.

3/ Sources of supply for chain stores will be given in a later report on this study.

Table 59.—Known sources of supply of apples, by type of outlet, as reported by independent retailers, New York City, November 1939

How and where apples were purchased 1/	Total or average, all outlets				Proportion of purchases by each type of outlet			
	Quantity purchased		Number of stores		Fruit and vegetable stores		Meat markets	
	Total weekly	Percent-age of total	Total	Percent	Percent	Percent	Percent	Percent
Pounds	Percent	Number	Total	Percent	Percent	Percent	Percent	Percent
<u>Eastern apples:</u>								
Personal selection:								
At own store	24,158	4	116	11	3	14	4	1
Washington St. Market	233,516	37	257	25	40	36	48	32
Wallabout Market	84,552	14	133	13	14	10	8	18
Harlem Market	22,592	4	66	7	3	5	1	7
Gansevoort Market	1,824	2/	8	1	2/	1	-	1
Bronx Market	149,038	24	248	24	27	23	36	2/
Other markets	109,276	17	133	18	13	9	3	30
By telephone or mail	2,472	2/	14	1	2/	2	2/	-
<u>Western apples:</u>								
Personal selection:								
At own store	6,825	7	92	13	2	14	3	9
Washington St. Market	45,901	43	199	28	50	33	47	40
Wallabout Market	11,358	11	108	15	15	9	10	4
Harlem Market	4,559	4	38	6	2	9	2	4
Gansevoort Market	1,287	1	9	1	1	1	-	2
Bronx Market	19,313	18	171	24	21	18	31	8
Other markets	16,128	15	84	12	9	15	6	33
By telephone or mail	418	1	6	1	-	1	1	-

1/ In addition to the above, 39,010 pounds of eastern apples and 4,973 pounds of western apples were purchased at several different markets but the quantities could not be exactly apportioned to each market.

2/ Less than 1 percent.

#### NUMBER OF ITEMS HANDLED PER RETAIL OUTLET

As pointed out in previous reports <sup>q/</sup> each fruit handled by a retailer is just one more item insofar as that retailer is concerned. With so many different items to be merchandised, it is to be expected that many retailers are unfamiliar with the virtues of each fruit. The wonder is that some retailers do concentrate from time to time on selling a particular fruit, even though little or nothing is done by producers and the produce trade in general to help in such efforts.

The number of items carried in stock by retailers depends largely on the type of retail outlet, and the season of the year. Grocery stores seem to furnish the best examples of these principles. The average number of items on the shelves of independent grocery stores during November 1939 was 619, but stores in the lowest-income areas handled an average of only 356 items, in contrast with 918 items in highest-income neighborhoods (table 60). Chain grocery stores averaged 742 items per store in lowest-income areas and 1,282 in highest-income neighborhoods.

All types of retail outlets, except wagon or motor hucksters and pushcart operators, reported the handling of a substantially larger number of items per outlet during November as compared with August. For example, fruit and vegetable stores averaged 55 items per store in August and 1,146 per store in November. In other words, the number of food items competing with a single fruit, such as apples, oranges, etc., which is extremely large at any time, was even greater in November than in August.

These data concerning number of items handled per retail outlet lend additional emphasis to the conclusions set forth in previous reports, which are repeated here because they are considered important. Even casual observation of retailing practice makes it clear that cooperative associations, growers, and others should not expect retailers of their own volition to be fully informed, enthusiastic salesmen for their products. It is doubtful whether any clerk can know the merits of even 90 items in a high-income fruit and vegetable store, let alone about 1,000 items in a chain grocery store in a similar area. It is a matter of common observation that retailers push those items on which they are afforded sales helps and which they consider reasonably profitable. If retailers and their clerks are to become enthusiastic and well-informed salesmen of any one fruit, it seems that some interested group must prepare attractive sales programs and display material, and induce retailers to use them.

---

<sup>q/</sup> See references cited in footnote 6, page

Table 60. - Relation of type of retail outlet and income area to number of items handled per outlet, as reported by 1,516 retailers, New York City, November 1939

Type of retail outlet	Average number of items handled per retail outlet in each income area <sup>1/</sup>			
	Low income	Medium- low income	Medium- high income	High- income
Fruit and vegetable stores	34	73	57	104
Grocery stores				66
Independents .....	336	555	622	918
Chain stores .....	742	972	1,133	1,282
Meat markets .....	170	244	141	253
Pushcart operators .....	5	5	9	8
Wagon or motor hucksters .....	8	10	11	14
				10

<sup>1/</sup> For explanation of income area, see footnote 2, table 5, page 10.

Wholesalers and jobbers, each with wide lines of produce to merchandise, cannot be expected to concentrate sales efforts on a single product. If the job is to be done, it will probably have to be conceived and carried out by groups of growers (cooperatively or otherwise) and directed primarily at the consumers' main source of supplies - the retailer.



166.3 A.F U.S. Fa  
M68 Msc.  
no. 50 fruits  
cop. 2 Dec. 1

GPO 8-2432



